SPEAKING OF TRADE:
Its Effect on Agriculture

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Preface

Foreign sales have become basic to U.S. farmers' economic health and to the future growth of U.S. agriculture. Growth in foreign markets for U.S. products helps strengthen the dollar and helps hold down costs of imports. However, expanding trade is a two-edged sword. Greater reliance on foreign markets results in greater instability and uncertainty. Factors largely beyond our control–politics, economics, and weather in the rest of the world–become our problems and strongly influence our export sales.

Our expanded reliance on foreign sales points out that successful agricutural policy is a close-knit combination of domestic and international policy. This already complex picture becomes more complicated when long-term issues are considered. For example, how should U.S. trade policy deal with efforts of the world to feed itself? How should we respond to the "new international economic order" being forged by developing nations? What about U.S. food aid and other development assistance?

Compared to the complicated policy environment in which agricultural trade occurs, the purpose of this publication is modest. ***Speaking of Trade: Its Effect on Agriculture*** *was developed as a reference text in the agricultural trade and trade policy areas. It does not examine complex trade policy issues in full detail; rather, it offers the interested reader a good starting point from which further study might proceed. A thorough knowledge of basics is a prerequisite to understanding complex issues.*

Chapter 1 provides historical perspective on the development of international trading relationships, institutions developed to facilitate trade, and U.S. trade policy. Chapters 2 and 3 provide a set of economic ideas that help explain the gains and trade-offs from trade. Chapter 2 focuses on theory of trade between nations and examines reasons underlying protectionist policies and their economic consequences. Chapter 3 focuses on the link between international trade and domestic agricultural policy. It provides an analytical basis and a review of the policies various nations have taken with regard to trade and domestic policy. Chapter 4 deals with international commodity agreements. Nations importing and exporting agricultural commodities show increasing interest in such agreements as means to achieve policy objectives. Chapter 5 provides an overview of major commodity flows and how they have changed in recent years. Issues likely to occupy the attention of policymakers in the future are discussed in the final chapter. A glossary at the end will help familiarize the reader with many economic terms used throughout the publication.

We believe ***Speaking of Trade: Its Effect on Agriculture*** *will be useful to everyone who teaches in the trade policy area, whether extension specialists, classroom teachers, community leaders, or public officials. Additional teaching and learning are required for successful policymaking. This publication will contribute to those efforts.*

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A Historical Review of World Trade Policies and Institutions

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Introduction

The political and economic framework for world trade is discussed in this chapter. The introductory sections review some history of world and U.S. trade. Because today's trade problems, policies, and systems have evolved from past problems and actions, a look at earlier systems and why they became inadequate provides a basis for understanding the present.

The principal focus of this chapter is a discussion of the foundations of the contemporary world economic system. This includes monetary and trade arrangements in the post-World War II period and major international and regional organizations and institutions which regulate and determine imports and exports. The chapter also summarizes U.S. trade policies and agricultural policies affecting trade.

We selected topics to include in this chapter on the basis of their importance to an understanding of the forces impinging on U.S. agricultural trade.

Historical Roots

Trade among peoples in different lands began thousands of years ago as a simple, loosely structured system. By the sixteenth and seventeenth centuries, during colonial expansion, huge business firms (e.g., East India and Hudson Bay companies) and money, exchange, and credit markets emerged to facilitate trade and settlement.

At that time, governments supported trade to obtain gold to pay for exploratory voyages and for wars to protect settlement and trading opera-

tions. Hence, they encouraged exports, and imports were discouraged or prohibited. These goals and the means to achieve them became known as "mercantilism." The idea that imports could raise domestic consumption levels and thereby be beneficial was not recognized.

Mercantilistic ideas began to recede in the 1800s as the fruits of the industrial revolution spread. Many raw materials needed for expanding factory production had to be imported. Markets for the burgeoning output were sought around the globe. Trade volume mushroomed.

Significant moves toward more liberal trade occurred from the mid-1800s until World War I. Goods and capital flowed among nations with few barriers. Former tariff walls in Europe were lowered, and cheaper imports allowed nations to raise living standards. Economic arguments favoring free trade supported the movement. The period is known as an era of liberal trade.

The Gold Standard

The stability of currency exchange rates among trading nations facilitated trade expansion. Stabilization was achieved through the operation of the "gold standard." Values of national currencies were defined in terms of gold, linking them to one another. Since the value of transactions in any currency tied to gold was assured, a multilateral system of international payments could operate. Monetary institutions in London (then the financial center of the world) developed and managed credit and investment mechanisms to aid the flow of goods and of capital and to maintain exchange rate stability.[1]

International stability was achieved by adjustments within nations. The adjustment process operated through money supplies which were tied to national gold supplies. Increasing or decreasing the national gold supply exerted inflationary and deflationary pressures, respectively, on a nation's economy. The consequent price and income adjustments led to shifts in demand and supply schedules for imports and exports of goods, services, and capital. For example, if a nation's imports and exports resulted in a negative balance of payments (the country imported more than it exported), the deficit was made up by exporting gold. The reduced gold supply caused deflationary adjustments until imports and exports were brought into balance. (Or, more often, governments prevented gold outflow by reducing money supplies with other deflationary tools.) The resulting flow of goods, services, and capital was consistent with stable exchange rates and no gold flow. Thus, adjustments to international market changes were achieved by variations in price, output, and employment of each nation's domestic economy.

The gold standard was regarded as a self-regulating mechanism. To the extent that money supplies were tied to gold and that governments allowed their citizens to bear the burden of adjustment, it was true. In this period monetary managers did control domestic credit to maintain stable exchange rates. This did not create severe domestic problems because no great corrections were required.

The delicate international balance that permitted the gold standard to function was totally disrupted by World War I. But even before the war, the gold standard was under pressure. The direct correlation between gold stocks and money supplies eroded as nations developed more elabo-

[1]In time, British pounds (sterling) became more widely used than gold as an international money. It could be redeemed for gold, so its value was assured. This system is known as a "gold-sterling exchange standard."

rate credit systems. And, as trade sectors became larger and larger components of nations' economies, controlling credit to maintain stable exchange rates placed restrictions on economic growth that created severe domestic unemployment. When the internal consequences became politically unacceptable, the gold standard was dropped as the means of equilibrating international trade accounts.

Early U.S. Developments

From the colonial period to World War I, the U.S. developed from a frontier society into the world's leading industrial nation. As might be expected, U.S. trade policies reflected the changing internal and external conditions the new nation experienced.

At the close of the American Revolution most political leaders favored free trade, but because revenue was needed a tariff was enacted in 1789. The tariff lacked national consensus, however.

The North suffered competition in the export market for manufactured goods and wanted tariff levels high enough to provide protection. Meanwhile, the South favored free trade to encourage exports of its farm produce. The changing influence of these two regions on government decision making led to periodic shifts between liberal and protective trade policies. The Tariff Act of 1816 became the first tariff legislation to declare "protection" as an aim.

Between the end of the Civil War and the beginning of World War I, the United States enjoyed rapid economic growth. The country continued as a major producer and exporter of farm products. (It is interesting to note that the outpouring of grains from North America depressed European prices, leading to demands for protection by many European farmers. However, Denmark and the Netherlands responded differently. Instead of erecting tariff walls, these nations retained free trade policies and transformed their agricultures from crop to livestock production.)

Meanwhile, the conflict between liberal and protectionist advocates kept trade policies and tariffs fluctuating. By and large, import duties remained high. They reached their highest level with the passage of the Dingley Tariff of 1897. This was in the midst of a liberal trade era in Europe.

The Interwar Years: 1918-1940

Because of its global impact, World War I drastically altered production and trade patterns. Nations developed industries to meet war needs and to provide goods cut off by interruptions in international commerce. Loans and grants to support the war effort and postwar reconstruction distorted the patterns of capital flow and credit balances. Production and money-transfer decisions were not related to long-run economic considerations but to wartime goals. Nations imposed foreign currency controls, restricting movement of goods and money.

International economic relationships among nations were much less reflective of competitive conditions by the end of the war. Industries which had expanded to meet wartime demand saw their markets dwindle away. Agriculture typified the problem.

Grain production soared in Australia, Canada, and the U.S. to meet war demand. At the end of the war, when demand slackened, prices fell around the world. Farmers petitioned their governments for aid. Importing nations sought immediate relief by means of heavy import duties, quotas, and licensing systems. Exporters countered with subsidies.

Meanwhile, political and business leaders of many nations attempted to restore international commercial order and growth. Not surprisingly, they turned to the gold standard that had served well previously. But they did not adequately assess the changed circumstances. Eventually, most nations redefined the values of their currencies in terms of gold, so that relative values among foreign currencies could be determined and international accounts settled. However, the relative values (exchange rates) were far from equilibrium levels—i.e., they did not reflect the relative economic positions of the nations. Most nations chose their prewar currency values, which wartime changes had rendered obsolete. Moreover, national governments continued restrictions on the flow of goods and money in their attempts to adjust from war to peace. Consequently, the formal tie between currencies and gold did not function to balance international economic relationships.

The U.S. emerged from the war as the world's strongest economic power. We were not ready, however, to assume the leadership role imposed by this new status. In the void, nationalistic policies were pursued almost universally. Nations attempted to raise domestic employment and income by resorting to export subsidies, import prohibitions, and exchange depreciation. Because such practices improved one nation's economic welfare while hurting its trading partners, they are called "beggar-thy-neighbor" policies.

The strains imposed by mounting trade interventions and an inadequate international monetary mechanism contributed to a breakdown in international commerce. World trade volume plummeted during the interwar years.

In the absence of a functioning multilateral trading system, bilateral agreements and regional trading blocs proliferated. Germany dominated a Central and Eastern European group. England led in developing the Commonwealth preferential trading system. Within each trading group or under bilateral agreements, terms for payments and special tariff deals were spelled out.

Some actions taken by the United States illustrate policy developments affecting trade. To alleviate the distressed condition of the farm economy, the McNary-Haugen measure proposed establishment of a government corporation to buy farm commodities for export to maintain a desired level of domestic prices. Export sales would be made at whatever prices they would bring—an export dumping scheme. Although various versions were seriously considered in five sessions of Congress, none became law.

U.S. industry also demanded protection from external market forces. Congress responded in 1930 by passing the Hawley-Smoot Tariff, one of the highest in U.S. history. Many other nations retaliated by increasing their levels of protection. The consequent decline in trade and severe economic effects of the Great Depression led to a reexamination of protectionist policies in the U.S. The Reciprocal Trade Agreements Act of 1934 resulted from this reexamination and reversed the trend of ever-higher tariffs. It emphasized the need to expand markets for U.S. products and authorized the President to enter into mutually advantageous bilateral trade agreements. Since the act contained a "most-favored-nations" provision, these bilateral agreements had a multilateral effect. From 1934 to 1945, agreements were concluded with 30 countries, moving the U.S. somewhat toward freer trade in industrial products.

At the same time industrial trade was being encouraged, agricultural trade was being curtailed. The introduction of direct-market-intervention farm programs, designed to raise and stabilize farm prices and incomes, had international repercussions, because most authorized export subsidies and import barriers. For example, U.S. grain and cotton prices were supported at levels above world prices in most years. Quotas prevented imports while subsidies abetted exports. These practices severed the link between internal and external prices for farm products, bringing trade policy and farm policy into conflict.

Additional farm programs were implemented in the U.S. to expand domestic demand, curtail production, store commodities, and encourage exports. Many provisions introduced in the 1930s have been retained into the 1970s. Two of these, commonly known as Section 22 and Section 32 (1935 amendments to the Agricultural Adjustment Act of 1933), permit import quotas and export subsidies, respectively, to aid domestic price support efforts.

Foundations of the Contemporary World Economic System

The destruction and the rearrangements of production patterns resulting from World War II, coupled with memories of the international economic chaos of the depression years, led to strong desires to create an expansionist and open economic order after the war. Cooperation among nations in international economic relationships was considered vital as all nations sought to minimize postwar unemployment.

In contrast to its isolationist posture after World War I, the U.S. asserted its leadership role in constructing the post-World War II world. While international efforts for reconstruction and development centered in the United Nations and its associated organs, they all bore the U.S. stamp of approval. Of special relevance are the trade and monetary institutions which evolved.

Discussions for shaping the postwar world economy began before the end of the war. They culminated in a conference at Bretton Woods in 1944 for planning an international monetary system supportive of free multilateral trade. Two monetary institutions were established: the International Bank for Reconstruction and Development (the IBRD, or the World Bank) which began operation at the end of 1945, and the International Monetary Fund (the IMF, or the Fund) which opened in 1947. The specific formulation of a trading institution was delegated to subsequent negotiation.

The negotiations began in 1945 to frame an international trade charter as the foundation for a worldwide system of liberal trade. The charter proposed establishing an International Trade Organization (ITO). After several preparatory sessions, the United Nations convened a Conference on Trade and Employment at Havana in 1947 to finalize and adopt a charter for the ITO. The charter specified principles and rules for reduction of tariffs, elimination of quotas, and creation of conditions for the expansion of multilateral trade on equal terms. It set up rules for international commodity agreements and government regulation of business practices that might restrain international trade. It recognized the need for governments to relate foreign trade policies to domestic measures in order to allow for stability and full employment. It also provided some of the elements of a code for private international investment. In addition,

less developed countries (LDCs)[2] secured some provisions to allow imposition of trade and monetary controls to protect their developing economies.

Efforts to ratify the Havana ITO charter were abandoned after political support could not be generated in the U.S. Congress. To powerful U.S. interests it appeared that every nation except the U.S. could claim exemption from the trade liberalization provisions. The developmental work was not all lost, however. The commercial trade policy section of the charter, the General Agreement on Tariffs and Trade (GATT), had already been accepted by 23 nations, including the U.S. Thus GATT became permanent and was transformed into an international agency responsible for implementing a code of conduct for international trade.

These major international agreements—GATT, IMF, and IBRD—are now discussed in more detail, as they have formed the institutional framework for international commerce in the postwar era.

The GATT Trading System

The General Agreement on Tariffs and Trade (GATT) is a multilateral treaty dealing with international trade. It replaced a series of prewar bilateral agreements that segmented world trade. The agreement contains a code of principles and rules and provides a continuing forum for consultation and dispute settlement and for periodic negotiating conferences to be called by member nations. More than 80 governments, including the U.S., participate fully; others have observer or partial status. GATT has grown, since 1947, in membership and influence.

The original fundamental aim of GATT, to liberalize and expand trade through negotiated reductions in obstacles to trade, implied a "free market" objective for the world trading system. Yet, in recognition of immediate postwar problems, the first goal became to prevent nations from exporting their adjustment problems and from raising existing levels of protection. Gradually, the ultimate aim of free trade was broadened. Now, increased attention goes to improving trade conditions and market access for all countries. Added emphasis recently has been given to harmonization of domestic goals to avoid consequences which are disruptive to trade.

GATT has five basic principles. (1) Trade must be nondiscriminatory. All contracting parties receive equal treatment regarding import and export duties and charges. No new preferential or bilateral agreements are sanctioned. The original agreement allowed exceptions for LDCs and regional trading groups; however, the impact of future trading blocs was not foreseen. (2) Domestic industries receive protection mainly by tariffs. Agriculture was granted special treatment, however. For instance, Article 11 permits import quotas on agricultural products if domestic production restrictions are in force. (3) Agreed-upon tariff levels bind each country. If tariff levels are raised, compensation must be made to injured countries. (4) Consultations are provided to settle disputes. (5) When warranted by economic or trade circumstances (such as balance of payments problems), GATT procedures may be waived, or escape provisions allowed, if other members agree and compensation is made to them.

Since its inception, seven major negotiating conferences or "rounds" have been held. The first major achievement was to bind (prevent the raising of) existing tariff levels. Each subsequent round of negotiations

[2]Countries where the gross national product is low—generally below $500 to $600 per capita.

reduced industrial tariffs substantially. Trade problems of LDCs received little special attention in these early years.

Despite extensive discussions, no agreement could be reached to liberalize agricultural trade during the first decade of GATT. All major nations protected their agricultural sectors and could not envision retreating from those policies. In the 1950s the U.S. requested an agricultural ruling to legalize its use of import quotas for protecting domestic dairy producers. A waiver was granted that was broader than the exemption allowed under Article 11 of GATT. (Article 11 permits quotas only if production is controlled. U.S. dairy programs do not control supply.) This step weakened U.S. influence on future developments in GATT. For instance, other nations cite our waiver when they resist our attempts to gain or improve access to their protected agricultural markets.

The three most recent sessions discussed below reveal the evolving nature of GATT negotiations. The ability of GATT to address new problems in a changing trade climate reflects the willingness—indeed the eagerness—of its members to avoid an international economic catastrophe.

"Dillon Round" (1960-61). This session came in direct response to the formation of the European Economic Community (EEC), now known as the European Community (EC or "Common Market"). The U.S. and other non-EEC GATT members wanted to prevent economic discrimination by the EEC. EEC policy called for a common external tariff for EEC members. Such a tariff violated previous commitments by individual nations. The non-EEC members were unsuccessful in their challenge. The EEC and its tariff policies became a reality. For political reasons, U.S. support of a strong Europe tempered its pursuit of these economic goals.

The U.S. did achieve one significant concession for agriculture in this round. Soybeans, soybean meal, other oilseeds, and cotton were granted virtually duty-free entry to the EEC.

"Kennedy Round" (1963-67). These negotiations were instigated at the request of the U.S., as was the Dillon Round. After arduous preparatory sessions, negotiations began with industrial products. Members eventually agreed to a one-third reduction in tariffs. However, agricultural negotiations were delayed by a disagreement on procedures. The EEC was not prepared to negotiate on farm products since its internal policies were not yet settled. Agricultural negotiations finally got underway in September 1965, with suggested provisions for an agreement on grain trade. Discussions led to the International Grains Arrangement, concluded in 1967, which replaced an expiring International Wheat Agreement. (These and other commodity agreements are discussed in chapter 4.)

Despite difficulties in negotiating, some tariff concessions were made on a wide range of farm products. Even though tariff reductions on farm products were generally smaller than those for industrial products they were significant, because for the first time GATT seriously attempted liberalization of agricultural commodity trade. Our government willingly entered such negotiations since it had lowered U.S. grain prices to world levels. However, our protective stance on agricultural imports continued to plague efforts to reduce barriers for agricultural exports. Meanwhile, the EEC remained steadfast in protecting Community-produced farm products at high prices. The rising economic power of Europe (and Japan) was changing the international power structure. U.S. dominance in the world economic system was starting to diminish.

Although achievements of the Kennedy Round did not satisfy the optimists, it is still regarded as a high-water mark of international trade cooperation.

"Tokyo Round" (1973 to date). Multilateral trade negotiations reopened in Tokyo in September 1973, with more than 100 participating nations. The impetus for this round was the reformation of international economic relations called for by President Nixon in August 1971. Our government argued that existing monetary and trade arrangements discriminated unfairly against U.S. exports.

Our negotiators sought greater access to markets for U.S. agricultural exports. They requested discussion of nontariff barriers (the chief impediments to agricultural trade), which include variable levies, import quotas, export subsidies, packaging and labeling standards, government procurement practices, customs valuation methods, import licensing requirements, and sanitary regulations. The United States also wanted agricultural and industrial negotiations kept together to ensure a positive and equitable outcome for U.S. agriculture.

The final outcome of this round is not known at the time of writing.

International Monetary Fund

The International Monetary Fund (the IMF, or the Fund) was originated to develop and maintain an orderly and stable international monetary system which would permit expansion of world trade and economic growth for its member nations. The regulatory procedures agreed-upon formed a sharp contrast to the automatic process the gold standard once provided. Its guiding principles have been consultation, cooperation, adaptability, and flexibility. These principles originated from recognizing that fundamental disequilibrium among economies of the world can and does occur as nations develop at differing rates and with different policies. The need for adjustment is evident in balance of payments surpluses or deficits. For instance, a nation with continuing deficits can lose its international liquidity (funds to settle its international accounts), which triggers a lack of confidence in its currency. Consequently, IMF provisions were made for temporary and permanent adjustments in exchange rates.

To cover temporary trade deficits, member nations are able to draw funds from a revolving pool of foreign currencies and gold, paid as a requirement for membership. Major changes in exchange rates require consultation and agreement by members of the Fund. Although numerous adjustments have been made, the system has functioned more as a fixed than a flexible exchange rate system. Despite this, the original system worked well enough to survive nearly a quarter century.

During its lifetime, IMF membership has expanded from an original few dozen nations to virtually global coverage of the non-Communist world. To belong, a nation must agree to free monetary movements among nations and to redeem its currency for foreign currency. Because a sudden change from a restricted foreign exchange practice to a free system would disrupt an economy, a transition period was allowed to dismantle exchange controls. In the transition period, yearly consultations with the Fund require members to review progress and to discuss proposed policies. Wartorn nations employed the transition period provisions in the first postwar decade to restore their internal economies before moving to currency convertibility. The currencies of most industrialized nations became convertible after 1958.

LDCs have continued to use the transition period provision as a means of entry into the IMF, while maintaining controls on foreign exchange. LDCs consider such controls essential for pursuing their domestic development goals. Another feature which benefits the LDCs is the compensatory financing provision, introduced in 1963 and expanded in 1975. It authorized loans to LDCs when export earnings fall. Repayment is due when earnings rise.

Until the mid-1970s, gold was the basis of the IMF monetary system. National currencies were assigned values in terms of gold or in terms of a gold-based currency, which in practice was the U.S. dollar. The system was, therefore, a gold-dollar exchange standard. This gave the U.S. dollar a special status in the international monetary system. It created a direct and substantial interaction between the U.S. economy and international financial conditions.

For the international economy to grow, the international money supply must grow. Therefore, when dollars are the main international money, the U.S. should run balance of payments deficits to increase the international money supply. U.S. deficits do not occur, however, because of the need for international liquidity but because of imbalances in U.S. capital and trade flows. Imbalances of other nations were resolved by changing exchange rates, not automatically but by agreement of the Fund. The U.S. situation does not preclude such realignments, but it does discourage them because of the ramifications for the rest of the world. This illustrates a vulnerable feature of such a system.

Students of the international monetary system recognized that the system just described needed reform, yet no acceptable solution was in the offing in the 1970s. Several steps had been taken in the 1960s to mitigate emerging problems. For instance, the Fund enlarged its pool of gold and currencies by raising members' quotas. Special arrangements also were made to permit borrowing of currencies. "Special drawing rights," sometimes called "paper gold" or SDRs, were created to supplement national currencies and gold and create liquidity. All of these measures aided members in managing their balance of payments.

These measures alleviated but did not resolve the underlying weaknesses eroding the original IMF system. The system broke down in 1971 when the U.S. suspended its commitments to the IMF and called for reform. This marked the end of the original post-World War II or Bretton Woods monetary scheme. Lack of confidence in the dollar and the U.S. action reflected the inability of the original system to adjust international monetary relations to changing international economic conditions.

The crisis created by the U.S. action stimulated other nations to agree to substantial revisions in the world monetary system. The value of the U.S. dollar relative to other currencies had gotten seriously out of line. Disparities were greatest between the dollar and the yen and the mark. The dollar was devalued twice: 8 percent in August 1971 and 10 percent in February 1973. These realignments proved inadequate, so world monetary managers agreed to a further step away from the stable exchange rate system. Exchange rates now are allowed to fluctuate (or "float"), letting the market determine their relative values. National monetary authorities now let rates change from moment to moment as the market dictates. Governments may intervene to control or manage fluctuation for domestic purposes, within the scope allowed by IMF rules. The system is functioning reasonably well, but only time will tell for how long.

International Bank for Reconstruction and Development

The International Bank for Reconstruction and Development (the IBRD, or the World Bank) and its two affiliates, the International Finance Corporation and the International Development Association, originated to stimulate the flow of capital among nations. At first postwar reconstruction was the focus; now it has become economic development.

The contribution of the World Bank group to trade is less direct than that of the IMF. The Bank's chief function is to channel capital into investments in LDCs. Among Bank activities are projects to aid production and marketing of exportable commodities, to finance imports of capital equipment, and to train country specialists.

Trade and the LDCs

The LDCs, or developing countries of the world, found fault with the monetary and trade institutions (IMF and GATT) established and managed mainly by the industrialized countries with market economies. (Discussions between developed and developing countries on international economic problems often are called the "North-South dialogue" because most developed nations are in the northern hemisphere and most LDCs in the southern hemisphere.) The LDCs claimed their needs were not given adequate consideration by other bodies and, in fact, that their development was impeded by some policies which benefit more advanced nations. As an example LDCs observed that prices of their exports, mainly raw materials, had not risen as fast and were more variable than prices of their imports, mainly manufactures.

To seek redress, the LDCs turned to the international organ where their voices predominate, the United Nations; and in 1964 they succeeded in establishing the United Nations Conference on Trade and Development (UNCTAD) as a permanent organization. It functions with a continuing body, the trade and development board, and periodic conferences. The conferences, referred to as UNCTAD I, UNCTAD II, and the like, are held every 4 years. The most recent conference, UNCTAD IV, was at Nairobi in 1976.

Discussions among LDCs which centered in UNCTAD led to calls for a "new international economic order" (NIEO) in the international community in the mid-1970s. One cornerstone of the NIEO is an integrated program for commodity trade. The NIEO and this program are discussed in chapter 4, which examines international trade arrangements.

Regional Organizations and Trading Blocs

International trading relations in the final decades of the twentieth century are being influenced increasingly by regional organizations and trading blocs. Such groupings are formed to seek or preserve some economic advantage for member nations. In general, they seek some of the benefits accruing from international specialization when worldwide agreements are unlikely or undesirable from the viewpoint of a nation or group of nations.

A great variety of organizations are encompassed in regional organizations and trading blocs. They include free-trade areas (no tariffs or quotas between members, and nonmember policies determined by each country); customs unions (no tariffs or quotas between members and common external policies); common markets (no tariffs or quotas between members, common external policies and unrestricted movement of labor and capital); and economic and monetary unions (in addition to

the integration measures of common markets, fiscal and monetary policies are harmonized).

The practice of forming trading blocs stretches far back into history. Only those which play major roles in the current international economy are described here.

European Community (EC or "Common Market"). This is one of the most influential trading blocs in today's world. Formed by West Germany, France, Italy, the Netherlands, Belgium, and Luxembourg in 1957 by the Treaty of Rome, it enlarged in 1973 with the addition of the United Kingdom, Ireland, and Denmark.

The goals of the EC are to promote harmonious development of member nations' economies with continuous and balanced growth, greater stability, improved living standards, and closer relations. Political union was the ultimate aim of EC architects. To achieve their goals they have fostered free movement of goods, capital, and labor among members, while maintaining a common tariff for the rest of the world, and common economic, social, and monetary policies.

Agriculture has proven a difficult sector to bring into the Community framework. Community farmers had been heavily protected, and social concerns have dictated the continuance of protective measures. Community agricultural policy is called the Common Agricultural Policy (CAP). The thrust of the CAP is to maintain internal prices at levels generally above world prices. Details of the CAP are discussed in chapter 3.

In addition, special trading relationships have developed between the EC and several other individual nations and groups of nations. These agreements offer varying degrees of preferential treatment to participating countries. The U.S., Japan, and Australia are among the few nations who do not have special agreements with the EC. One agreement, the Lomé Convention concluded in 1975, includes about 50 LDCs (mostly former colonies) in Africa, the Pacific, and the Caribbean. A second group includes nations bordering the Mediterranean Sea. Other agreements have been made with EFTA and COMECON (described below) and with LDCs in Asia and Latin America.

Many concessions granted LDCs are in accord with UNCTAD commitments for developed countries to offer nonreciprocal preferences to LDCs' products. Others are a continuance of former trading privileges between colonies and former colonizers. Despite this wide network of special trading relationships, however, there has not been a general lowering of protection to Community farmers.

European Free Trade Association (EFTA). This organization was formed in 1959 by the United Kingdom, Denmark, Austria, Norway, Portugal, Sweden, and Switzerland to unify non-EC European nations. The commercial interests of these nations were threatened by the formation of the EC.

The broad objectives of EFTA—full employment, financial stability, improvement of living standards, and expansion of trade—were to be advanced by eliminating tariffs and quotas and by promoting economic cooperation among members.

Finland became an associate member in 1961. In 1970 Iceland joined. The United Kingdom and Denmark left in 1973 after becoming EC members. Import duties on most industrial products were removed by 1967.

During 1972 and 1973 each EFTA member contracted a bilateral free trade agreement with the EC to dismantle industrial tariffs. When fully implemented it will be the first time in history that industrial goods will be free to move among the 16 European EC and EFTA nations without

trade restrictions. It is a remarkable accomplishment. However, farm commodities are not covered by EFTA or in the bilateral EC agreements. The difficulties in reconciling the social, political, and economic goals of national farm policies with the consequences of freer trade have proven insurmountable.

Council for Mutual Economic Assistance (COMECON, or CMEA). This group organized in 1949 to further economic cooperation among Eastern European nations and the Soviet Union. Mongolia joined in 1962; Cuba has belonged since 1972. Yugoslavia does not participate fully. Finland, Iraq, and Mexico have joined as "cooperants." Other nonsocialist states also are exploring some form of association. Representatives from each nation meet to coordinate planning. Within CMEA, each member has veto power over agreements applying to it. Because agreements do not bind all members, bilateral agreements often are concluded under the CMEA umbrella.

In 1964 CMEA formed a bank to clear currencies among countries. They also formed a bank in 1971 to finance joint investments of member nations. Currency values are based on the Soviet ruble, and, in the absence of a market system, transaction values are determined by negotiations.

Since the mid-1960s the CMEA has been a viable forum for economic cooperation and planning.

Others. The Latin American Free Trade Area (LAFTA), the Caribbean Free Trade Area (CARIFTA), and the Central American Common Market (CACM) are three trading blocs formed by developing countries. LAFTA was created in 1960 by Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. Free trade among member countries is the goal. Little progress has been achieved. CACM, which includes Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua, is virtually dead. CARIFTA was formed in 1968 by former British Caribbean colonies. Most tariffs and quotas have been eliminated. Some hope for success seems justified. In general, the economic integration of LDCs has been fraught with more pitfalls than the groupings of more industrialized nations.

U.S. Trade Policies

Since the 1930s U.S. agricultural trade policy has been shaped largely by domestic farm programs. For years many prices were maintained above world price levels. Export subsidies, import quotas, and foreign food aid programs were required to cope with excess production. Earlier, agriculture was exempted from the move toward trade liberalization following enactment of the Reciprocal Trade Agreements Act of 1934. Later, as agricultural exports became increasingly important to U.S. farm income and to the balance of payments, positive measures were pursued to establish and expand foreign markets. A synopsis of the key legislative actions is provided here.

Trade Acts

U.S. trade policy after World War II was formulated under the authority of the Reciprocal Trade Agreements Act of 1934 as amended and extended until 1962. A 1945 change allowed the President to cut U.S. import duties by as much as 50 percent from their original levels. Among several important amendments in 1948 were: (1) a "peril point" clause

that required the Tariff Commission to establish rates of duty below which tariffs could not be cut without damaging U.S. industry; and (2) changes in Section 22 provisions to give the President more flexibility to restrict imports that interfered with U.S. agricultural price support programs. (This violated U.S. obligations under GATT and necessitated the 1955 waiver mentioned previously.) In 1949 the peril point amendment was eliminated. Two years later the peril point clause was restored and, reflecting "cold war" politics, tariff concessions on imports from the USSR and other Communist-dominated countries were suspended.

In 1955 and 1958 the President was given additional but very limited authority to reduce U.S. duties. U.S. tariffs could not be reduced below certain peril points, which were to be determined by the Tariff Commission.

New legislation, the Trade Expansion Act of 1962, marked a change to more aggressive pursuit of trade liberalization by the U.S. government. Presidential power was expanded and many restrictive clauses were excluded. Although the peril point provisions were not retained, the Tariff Commission (now the U.S. International Trade Commission) was directed to advise the President on the "probable economic effects" that changes in duties or other import restrictions might have on U.S. industries.

Of special note is a major innovation contained in the act, a provision for adjustment assistance to firms and workers if, "as a result in major part" of U.S. trade agreement concessions, imports "cause, or threaten to cause, serious injury" to the firm. The underlying philosophy was that the remedy for increased imports should be adjustment to new competitive conditions or a shift of resources to other activities, rather than trade restrictions that would result in retaliation, loss of export markets, and higher consumer prices. In practice, little assistance was granted.

There was no authority for trade negotiations after the 1962 act expired on July 1, 1967, until enactment of the Trade Act of 1974. The 1974 act grants the President power to reduce tariffs over a 5-year period. The act also provides more relief from serious injury or threat of injury caused by growing import competition, and it broadens the range of actions the United States can take in response to unfair international trade practices. In addition, it permits the United States to extend most-favored-nation tariff treatment to countries not now receiving it and to participate with other developed countries in granting generalized tariff preferences to products of developing nations. The generalized system of preferences is designed to give LDCs limited duty-free access for many export commodities. It primarily is intended to open U.S. markets for LDCs' manufactures, although about 300 agricultural products are covered, too.

The U.S. has participated in GATT negotiations since 1947 under the authorities of the above laws.

Export Subsidies

Domestic agricultural legislation authorizes subsidy payments to encourage exports when U.S. prices exceed prices abroad. Such payments have been a common practice. From 1955 to 1966 about one-third of all commercial agricultural exports received assistance. Wheat exports have been the main beneficiary. Sizeable payments also have been made to aid exports of fruits, feed grains, cotton, dairy products, rice, and tobacco. Annual outlays fell after the mid-1960s. Since then farm income has been supported mainly with government payments to farmers, allowing prices to move at world levels; therefore, direct export subsidies are not needed.

Import Quotas

Import quotas have been applied in recent years for dairy products, grains, cotton, peanuts, sugar, and meat. Special legislation restricts sugar and beef imports. Quotas on other commodities may be imposed under Section 22, when domestic price support programs keep prices above internationally competitive levels. Escape clause provisions of the 1974 Trade Act also allow imposition of quotas. In some cases sanitary, packaging, and other regulations have been sought to restrict imports.

Producers of the restricted items benefit by quotas or import prohibitions, but users of those items are disadvantaged by higher prices. The interests of export commodity producers and consumers clash with the interests of import commodity producers.

Government Program Exports

A buildup in U.S. agricultural surpluses began in 1953. To remedy the situation—and continue humanitarian assistance inaugurated earlier—the concept of using U.S. surpluses to help countries that could not purchase commercially the food and fiber they needed was developed.

Congress approved the concept and incorporated it into the Agricultural Trade Development and Assistance Act of 1954, or Public Law 480, which soon became an important instrument of U.S. foreign policy. P.L. 480 sales were made for foreign currencies which were used to promote economic development in recipient countries, to promote U.S. farm products overseas, and for other purposes. Amendments to P.L. 480 in 1966 and 1972 called for gradually replacing sales in foreign currencies by 1972 with sales under long-term, low-interest credit, repayable in dollars or convertible foreign currencies. In addition to credit sales (accounting for about 70 percent of all farm commodities shipped under P.L. 480), P.L. 480 programs have included donations to meet disasters, develop child and maternal feeding programs, and support self-help development projects.

Besides P.L. 480, U.S. concessional agricultural aid has been provided under U.S. Mutual Security/Agency for International Development (AID) programs. Amendments to P.L. 480 and AID programs were integrated in the International Development and Food Assistance Act of 1975 (amended in 1977). This act further increased the emphasis on supporting economic development and self-help efforts of developing countries and providing food assistance to the poorest nations.

Trade with Communist Countries

For political reasons the U.S. prohibited most trade with Communist countries after World War II. On a case-by-case basis controls were gradually lifted; trade subsequently increased. An expansion of trade and the concomitant closer linkage of "Eastern" and "Western" nations was viewed as a constructive development in international relations. Greater interdependence is economically advantageous to both sides and, thereby, raises the cost to either side of disrupting the world order.

The Soviet Union has been an erratic purchaser of grains in world markets in the past decade. In several years unanticipated large purchases were made to offset low production. To lessen the destabilizing effects of such purchases the U.S. negotiated a 5-year grain agreement with the USSR to set annual minimum and maximum purchase levels. To obtain more U.S. grain, consultation is required.

This bilateral agreement is viewed generally as a stabilizing influence, at least on U.S. grain markets. However, the assurance of grain supplies to the USSR may lessen the incentive to secure Soviet participation in global food security planning.

Concluding Comments

The contemporary world economic system described in this chapter is a dynamic process which undergoes continual change. As national and international problems arise, legislative and administrative bodies take actions that modify monetary and trade policies and institutions. The current events of today will affect the trade policies of tomorrow. The issues most likely to shape the future world system are discussed in chapter 6. How the many nations of the world choose to work individually and collectively to solve their economic and political problems will determine what system will prevail in future years.

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2

Basic Concepts of Trade

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Introduction

Some of the most bitter disputes in economic policy explode when international trade and trade policy are discussed. Politicians, business and labor leaders, farm spokesmen, and consumer advocates constantly wrangle about exports, imports, and the international balance of payments. Professional economists, too, are heard on most sides of any particular trade issue. Yet, the basic theory of international trade consists of ideas on which economists widely agree.

Then why is there such a gulf between the theory and the everyday world of international trade and trade policy? Part of the answer lies in the abstract nature of trade theory. Part lies in the uneven way economic adjustments affect real people and their institutions, as changes in trade and trade policy occur.

This chapter emphasizes the basic building blocks of international trade theory and highlights some of the special characteristics of international exchange that once led a British statesman to write, "Free trade . . . is in almost every country unpopular." This remark, made about 150 years ago, could have been penned yesterday. First, we look at some of the basic ideas of international trade theory. Then we consider why modern trade policy and practice often depart radically from what is suggested by the basic ideas of international trade theory.

As we discuss the basic concepts of trade it is important to remember that trade theory, like all economic theory, is a simplification of reality. It is a tool with which we simplify and understand the underlying forces at work even as governments, institutions, and problems change.

Why and How Trade Occurs

Trade concepts can be reviewed from several viewpoints. One is the viewpoint of individual buyers and sellers; another is the viewpoint of particular commodity markets; still another is the viewpoint of a nation considering its economic position relative to other nations. The classical development of trade theory stems from this latter vantage point, considering the whole nation as an economic unit.

The Nation as an Economic Unit

Trade theory is concerned with economic relations among nations. To focus on economic forces that shape these relations, trade theory treats each nation as if all decisions were made either by a single rational authority or by many small buyers and sellers in keen competition with each other. This is a simplification also employed in other fields of economic theory.

Using the nation as the economic unit defines away many real issues. In pure trade theory, the nation-unit is assumed to employ its resources fully. Its economic structure is assumed to permit resource adjustments to occur smoothly and completely in response to changing conditions. More advanced discussions of trade theory explore the consequences of changing these stringent assumptions. Naturally, the complexity of the analysis increases. Yet few would quarrel with these assertions:

(1) Economic resources usually can be reallocated more easily within a nation than among nations.
(2) Language, law, institutions, and customs are generally more uniform within a nation than among nations.
(3) Political barriers exist for international transactions. These barriers do not have counterparts in purely domestic transactions.

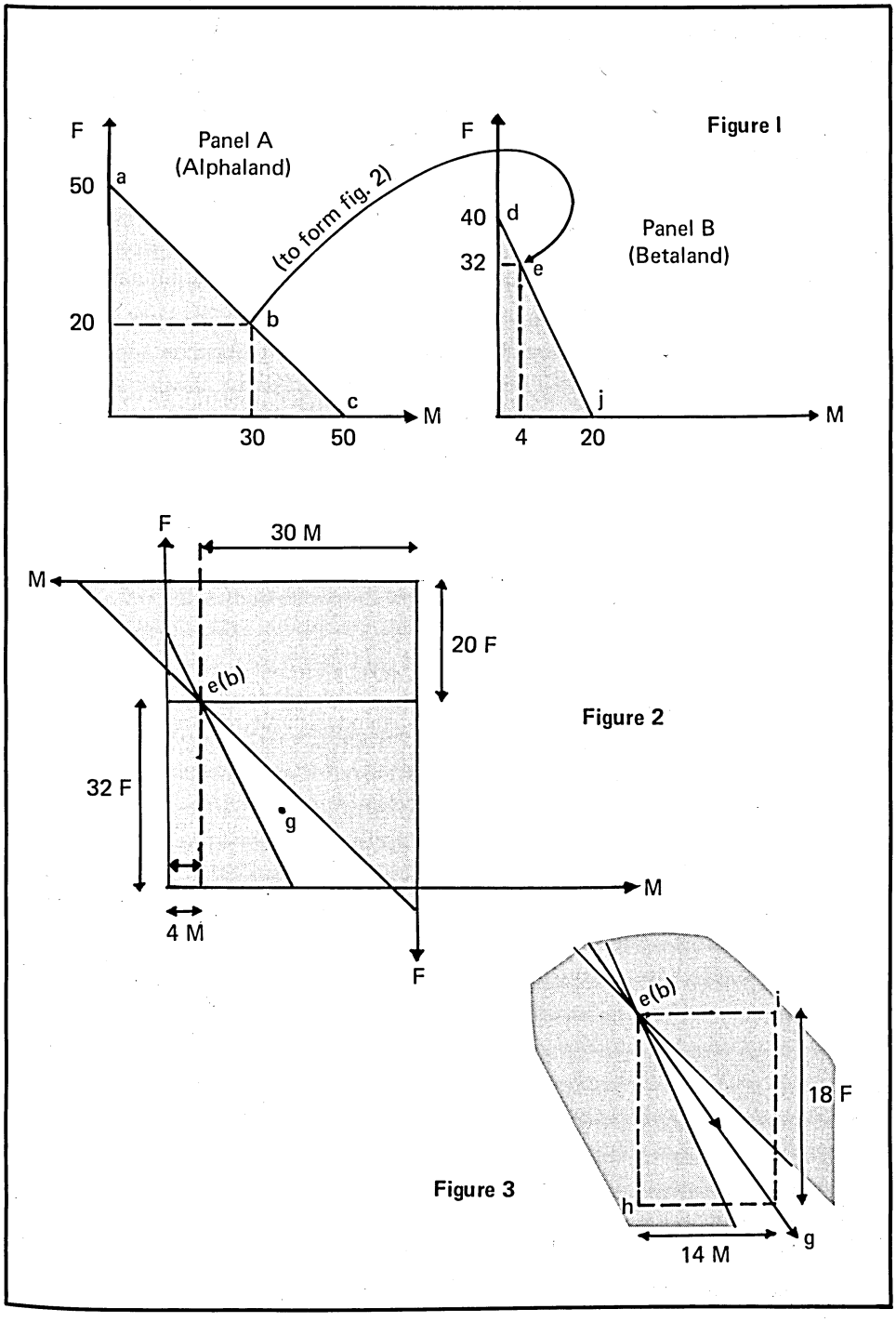
These conditions are enough to justify using nations as economic units for trade analysis. The ideas that flow from viewing nations as economic units can be compared with the forces which play on individual buyers and sellers in international markets.

Causes of Foreign Trade

Individual traders generally use current prices and costs to form their decisions. They buy goods (and services) wherever they can obtain them most cheaply, and they sell them to the buyers offering the highest prices. This behavior is observed within and across national borders. Hence, the early classical economists used it as a guiding principle to explain international trade. Accordingly, a country exports whatever it can produce more cheaply than others and imports those items others can produce more cheaply. A country has an "absolute advantage" in the production of a good if its production costs are lower than other countries' at prevailing prices and exchange rates.

The principle of absolute advantage appeals to common sense. But as our view expands from single products or industries to whole nations, then the least cost or absolute advantage principle loses something. What if a nation has an absolute advantage in all its products because of very cheap labor, abundant resources, or highly advanced technology? Although this is very unlikely, the logic of absolute advantage suggests that this nation would export products but import nothing. Why would a nation wish to do this? What would it do with its export earnings? Questions like these led economists to develop the idea of "comparative advantage" (see figures 1-3 and accompanying explanation).

Figures 1-3. The Key to Comparative Advantage in Trade



Think of two countries, Alphaland and Betaland. Each can use its resources and people to produce two major products—agricultural goods (F) and manufactured goods (M). Panel A of figure 1 shows Alphaland's possible outputs of F and M based on its particular combination of natural resources, capital, and people.

If Alphaland used all its resources in agriculture, it could generate 50 units of F per year and no units of M. This is point a in figure 1. If only manufactured goods were produced, 50 units of M could be had per year and no units of F, point c. By shifting resources between farms and factories, many output combinations of F and M are possible along the line abc. Points inside abc, within the shaded area, are possible too. But they are inefficient, reflecting resource unemployment or underemployment. From any shaded-area point inside abc, more M or F (or both) can be obtained without sacrificing any other

output. Along abc, more M can be obtained only at the expense of some F and vice versa. The slope or steepness of abc reflects the rate at which F and M can be substituted for each other *in production* by rearranging fully-used resources inside Alphaland. In this particular case, that rate of substitution is 1.0 F for 1.0 M. No output combination outside of abc is possible for Alphaland, given its resources.

Panel B of figure 1 shows the same thing for Betaland. But there are some differences. First, Betaland is a smaller economy than Alphaland. No matter what it does, Betaland cannot match the potential production of Alphaland in either F or M. Betaland could possibly produce 40 units of F (and no M) at point d, or 20 units of M (and no F) at point j. Any of the points along or inside dej are feasible, but only the points along dej are efficient. The rate at which F and M can be substituted for each other in production is different in Betaland than in Alphaland. For Betaland it is 2.0 units of F for 1.0 unit of M. This country-to-country difference in the rate of substitution of one output for another is the key to the concept of comparative advantage used in international trade analysis.

To grasp this concept, imagine that Alphaland is now producing and consuming the combination of 20F and 30M denoted by point b in figure 1. Assume similarly that Betaland is at point e, which is 32F and 4M. Now visualize taking panel A in your hand, flipping it over, and placing it upsidedown on panel B so that points b and e lie exactly on top of each other. This is point e(b) of figure 2. The size of the rectangle in figure 2 formed by this maneuver is the total amount of F and M produced in Alphaland and Betaland together. This "world" output is 34M and 52F. Point e(b) shows how this "world" production is shared between the two. Betaland produces 4 units of manufactured goods and Alphaland contributes 30 units, the total being 34. On the other hand, Betaland produces 32 units of agricultural products while Alphaland grows 20 units, totaling 52.

Up to now, these two nations were isolated from each other. Now suppose that they look into possible international trades. Why might they wish to do this? For one thing, they could, via trade, separate the combination of F and M that each produces from the combination that each consumes. In figure 2, the two nations could possibly trade away from e(b) to any point inside the large rectangle by exchanging F and M with each other.

Alphaland would not be interested in any trade that would deliver it to a shaded-area point inside abc. Those points are available to Alphaland without trade and are inefficient besides. Similarly, Betaland would disdain trades leading to shaded-area points inside dej. However, there are points in the rectangle that are outside the capacity of each nation to achieve independently yet are available through trade. These are inside the unshaded area of figure 2. This unshaded area exists because the rate of substitution of F for M differs between Alphaland and Betaland. The greater this difference, the larger this unshaded area of potential exchange.

If these two nations are jointly producing F and M at point e(b), demand analysis will show that, in general, the people of each nation will be better off if they trade away from e(b) down into the unshaded area. Determining a precise point of mutally agreeable exchange in that area is beyond this discussion, but it exists. Suppose for instance that it is point g in figure 2. At g, Betaland would have 18 units of M and 14 units of F available for use, while Alphaland would have 16 units of M and 38 units of F. Naturally, this distribution also uses up the total "world" output of 34M and 52F.

Figure 3 is a close-up view of part of figure 2. In order for the two nations to get from point e(b) to point g via trade, Betaland would need to import 14 units of M and export 18 units of F. On the other hand, Alphaland would export 14M in exchange for 18F.

Notice that this is a better trade-off of F for M than either Alphaland or Betaland could make by rearranging its own resources internally. Alphaland could obtain only 14 more units of F internally by shifting resources and giving up 14 units of M; but on the "world" market it can get 18 F units. Similarly Betaland could get only 9 more units of M internally by releasing resources from 18 units of F; through international trade it can gain 14M units.

In this example, Betaland has a "comparative advantage" in agriculture relative to Alphaland. This is because, within its own resource structure, it can generate 2.0 units of F for each 1.0 unit of M it gives up, and Alphaland can get only 1.0 unit of F for each 1.0 unit of M it gives up. The reverse argument shows that Alphaland has a "comparative advantage" in manufactures relative to Betaland. The existence of comparative advantage produces an area of potential trade (an unshaded area) within which *each* nation can make better deals for itself by international exchange than by adjusting its own resources internally.

Further analysis shows the validity of the common sense notion that trading nations can capture even further trading gains by specializing, at least to some extent, in the products for which they have comparative advantage. As times goes by, however, nations' resources and abilities may change. Such changes can drastically alter the world-wide patterns of comparative advantage.

The theory of comparative advantage was first stated clearly by David Ricardo in 1817. It has since been refined and extended by other economists. Instead of looking at the absolute level of costs of individual products, the comparative advantage idea suggests that we consider the cost of producing additional units of any one product in terms of the reduction necessary in the output of other goods. For example, to produce additional units of wheat, a nation would have to rearrange its resources. In doing so it might have to give up the opportunity to produce some units of corn.

The theory suggests that we compare these "opportunity" costs (e.g., the value of corn given up) with international prices. Then we should import goods for which the international price is less than the domestic "opportunity" cost of producing an additional unit at home. And, by the same logic, we should export products for which the international price is higher than the domestic "opportunity" cost of producing an additional unit. Resources released from producing imported goods can, in theory, be developed in the production of export goods. Via specialization and trade, consumers in each trading nation can escape from the limited combinations of products available from only domestic resources. Through exchange they obtain a lower cost and a more abundant, wider selection of goods and services.

In the context of comparative advantage, international trade rests upon differences among countries in the rates at which one product can be substituted for another in production by internal resource adjustments. These differences in opportunity costs are the basis of comparative advantage.

Mutually advantageous trade can arise among nations as long as these substitution rates differ. And they will differ where nations' climates, resources, people, and technologies differ. The principle of comparative advantage is symmetrical. That is, if a country has a comparative advantage in the production of one or more goods, than it must have a comparative disadvantage in the production of some other goods.

Comparative advantage is a real, not a monetary, concept. Because the structure of relative costs among countries forms comparative advantage, it is not affected by changes in currency exchange rates or general inflation. Exchange rates among currencies of trading nations (e.g., German marks obtained per U.S. dollar) translate comparative advantage into absolute advantage comparisons to which individual buyers and sellers may respond. However, the comparative advantage a country might have in the production of some goods may be obscured by an exchange rate with other currencies which does not reflect the real purchasing power of its currency. This can create a balance of payments problem, which will be discussed later.

The actual size and composition of trade flows and the equilibrium of international prices also depend upon demand conditions in trading nations. Demand conditions are shaped by national income and its distribution, population, and the tastes and preferences of people. Changes in demand can alter international trade just as well as changes in comparative advantage patterns.

Why Relative Costs Differ among Countries

The principle of comparative advantage helps shape a country's potential trade pattern. Production costs differ among countries because: (1) supplies of productive resources vary widely from country to country, so

the costs of using plentiful resources will be lower than costs of using scarce resources (this can apply to land, labor, capital goods, and the various technical skills available in the work force); (2) different commodities require basic resources in different proportions; (3) most goods can be produced by more than one production process—each with a somewhat different combination of resources; and (4) resources have differing degrees of mobility among countries.

If resources could be transferred easily from country to country, a major incentive for international trade—differences in relative production costs—would eventually disappear. Yet productive resources such as land and climate are truly fixed, and the migration of people is limited. Consequently, comparative advantage quite broadly explains most of the world's agricultural trade and much of the trade in other products. Still, technology and capital does move among nations, changing relative costs and comparative advantage. Hence, patterns of international trade evolve over time. This evolution causes most trade problems and trade policy disputes. An example of this is the post-World War II emergence of Japan as a highly competitive exporter of heavy industrial products and sophisticated electronic equipment.

Transport Costs

Trade is profitable to individual buyers and sellers only if the costs of transport and other trade barriers do not exceed the existing between-country price differences for the same goods. The ability of goods to withstand delays in transport (their nonperishability) and the value-to-weight ratio become important determinants in the commodity composition of international trade. Although the theory of trade often evolves as an abstraction from these issues, it can be shown that when the costs of overcoming distance of perishability exceed price differences no trade occurs.

Terms of Trade

We have considered why countries trade but have not been explicit about the specific terms on which countries will trade. Although several terms of trade concepts exist, the one most frequently used is the "commodity terms of trade," sometimes called the "net barter terms of trade." In a simple world of two commodities (for example, soybeans and cars) the commodity terms of trade are the price of one product expressed in terms of the other. For instance, 800 bushels of $5/bu. soybeans may have to be exported to import one $4,000 car. This 800 to 1.0 figure is a price ratio. There exist as many of these ratios as there are commodity pairs in a nation's trade picture. Individual traders need not consider terms of trade in making international transactions, but they are important for assessing the basic economic forces at work.

Since most countries trade in a multitude of products, it is useful to have one overall measure of the terms of trade rather than dozens of individual ratios. A composite price index of export products divided by a similar price index of imports is such a measure. This terms of trade index indicates how the prices of a nation's exports have changed relative to its import prices in comparison to some base period.

A decline in the terms of trade occurs when the prices of imports rise relative to those of exports. For many nations which export raw materials (like cotton) and import vital food and manufactures (like wheat and trucks), this can be an important measurement. Unless productivity in

the export sector has increased, such a decline reduces a trading nation's ability to import. This threatens its standard of living and its potential for economic growth. Changes in terms of trade adjusted for productivity, therefore, are frequently considered as a measure of the economic environment faced by trading nations.

When a country's terms of trade improve, its real income advances faster than its production. This occurs because the purchasing power of its exports has increased. It can use the proceeds from the same amount of exports to buy more or better imported goods than before. For instance, the sharp increase in coffee prices in 1975-76 paid for a substantial portion of Brazil's growing petroleum imports.

If one country's terms of trade improve, those of other traders will deteriorate. This is because the terms of trade are price ratios of goods flowing in opposite directions across international boundaries.

Gains from Trade

If international trade occurs, someone benefits on each side of the transaction. Otherwise, no trade would occur. In addition to narrow commercial motives of individuals, firms, and government agencies involved in trade, some broader economic effects occur as trade develops. These are beneficial to an economy at large, and can be grouped into two categories: those stemming from specialization in production and those which are a consequence of the exchange of goods.

Specialization

Trade theory indicates that it is to a country's advantage to specialize, at least partially, in producing goods for which it has a comparatively lower per-unit cost. Assuming that currency exchange rates are approximately in balance, comparative differences in production costs determine which goods are exported and which are imported. Thus trade can have a profound impact on a country's industrial and agricultural structure. Trade will stimulate investment and expansion of industries producing goods that are comparatively cheaper, and it will force the contraction of industries producing comparatively higher-cost products. As industries expand, they will demand inputs and products from other industries. This leads to investment not only in the export sector but elsewhere in the economy; the benefits of specialization are not limited to expanding export industries.

Resources and investments will move out of less efficient, higher-cost industries and toward expanding sectors. This process may be easy and rapid or painful and slow. But as it occurs in a market economy, per-unit costs will tend to rise in expanding industries as less efficient resources are drawn into them and fall in declining industries as least efficient resources are forced out. Ultimately the incentive for further expansion of domestic production for exports disappears. Over time a country's resources are utilized fully and most efficiently if they are allocated among industries in order of their comparative advantage. This involves specialization.

Exchange

How do individual consumers benefit from international specialization based on comparative advantage? A trade theorist might say that "international exchange raises the real income of a trading country." This

would not convince a steel worker whose job is threatened by foreign steel imports that trade is beneficial. What are the specific benefits of international trade?

International trade is beneficial when it allows buyers access to goods which otherwise would be either unavailable or more expensive. A large number of tropical products such as coffee, tea, cocoa, bananas, and spices would disappear from the grocery store shelves if international trade were interrupted. Domestic production of such items in greenhouses would be extraordinarily costly.

Relatively lower foreign prices also allow consumers to buy more goods with their disposable income. If people can buy imported television sets, textiles, or shoes for significantly lower prices than domestic items of comparable quality, they have in effect raised their incomes. Therefore, lower-priced foreign goods offer consumers a genuine economic opportunity to increase their purchasing power. This is true no matter what the reason for the lower foreign prices. Moreover, these price benefits extend beyond consumer goods. They also are embedded in imported industrial products and raw materials used to produce final goods domestically at lower prices than otherwise would exist.

Differences between domestic and international price ratios signal a profitable opportunity to transform domestic goods into foreign goods via exchange. Specialization according to comparative advantage permits a nation to produce more export goods than it wants and then trade them for less costly imported goods from all over the world. This provides a better deal for consumers than if everything were produced at home.

Distribution of the Gains from Trade

Generally, trade is better for a nation's economy than no trade; yet trade may not be beneficial to all individuals in an economy. And as trade patterns change, the distribution of benefits and problems in an economy also change. Most industrial and agricultural goods are produced using a multitude of raw materials, complex machinery, innovative technology, and skilled labor. Each of these inputs must be "rewarded" for its service (wages for labor, depreciation for machinery, rent for land, royalties for inventions, and returns for ownership and management). The sum of these rewards is the total cost of a product. Unless monopoly or direct government control are involved, the price of a product over time will equal its cost of production.

The reward each class of inputs earns depends upon the demand for it and its supply. The demand for any input (land or labor, for example) reflects the total demand for all products using it. Supply, however, is often fixed (at least in the short-run) and varies widely among countries. Some nations are richly endowed with natural resources such as fertile soil, good climate, or rich mineral deposits. Others have an abundant labor supply. Still others have an elaborate and modern industrial plant. Because resource prices generally reflect relative scarcity, the smaller the supply of a particular input relative to demand, the higher its price and the larger its share in total costs. If producers have some choice over how much of each resource can be used, they will choose a least-cost combination. This will be achieved by using less expensive resources in place of scarcer, more costly ones.

As international trade develops, trading nations "export" the services of abundant factors and "import" the services of relatively scarce factors.

As export industries expand because of international trade, the demand for abundant resources increases and so does their value. On the other hand, imports tend to lower the return to relatively scarce resources. Therefore, there is a tendency for resource prices to be drawn closer together as trade expands. Because of increased production efficiency, the trade-caused loss in income to scarce resources is smaller than the gains to abundant resources. Thus, a country as a whole gains from international trade even though some resources and their owners may be seriously damaged.

Protection from Trade: Why It Happens

Despite strong arguments about broad benefits of freer trade, the economic changes it generates can impose hardship on some industries and individuals. Those affected often argue successfully for protection against freer trade. Trade protection occurs when any group of producers or consumers is insulated from the full force of international competition by deliberate economic policy.

Most people think of protectionism as policies which reduce imports of foreign goods below amounts that otherwise would occur. This reduces competitive pressure on domestic producers of the same or similar items and delays resource adjustments. It is possible to reduce competitive pressures on export producers by policies such as export subsidies. These too are protectionist. Consumers or users of an export product can be protected from foreign buyer competition. Export taxes or embargoes (controls) can keep domestic prices lower than they otherwise would be by preventing products from moving to overseas markets.

The classic method of import protection is the tariff, sometimes called an import tax or duty. It can be either a fixed charge per unit imported or a fixed percentage of the value of each shipment. The former is called a specific tariff, the latter is an *ad valorem* tariff. Other nontariff protection devices include import quotas (direct quantity controls), mixing regulations, complex packing and labeling requirements, health and sanitary regulations, foreign exchange restrictions, and variable import levies. All have one thing in common: they make it more difficult or impossible for foreign sellers to compete with domestic sellers. Virtually all nations apply some of these protectionist devices. Generally, we can view them collectively as if they were tariffs because they drive a wedge between international prices and domestic prices.

Protection or Revenue

Historically, tariffs have been a major source of government revenue for many trading nations including the United States. The famous tea import tariffs imposed on the 13 original American colonies had no protective value. They were simply a tax on colonial tea consumers. The revenues went to the British government.

Tariffs are attractive as a government revenue source because of the ease with which they can be collected. This is especially so for numerous developing countries, since income or profit taxes are difficult to obtain.

However, most developed countries now levy tariffs mainly to protect domestic industries rather than raise revenue. For example, United States tariff revenues in 1977 were only 1.4 percent of all government receipts.

Reasons for Protection

When businessmen, farmers, or political leaders call for government-sponsored trade protection on behalf of an industry, they may advance many reasons. These reasons can be classified into a relatively few categories for discussion.

Protect a new industry. Tariffs and quotas often are used to protect new industries. For example, suppose that nation A does not produce cotton but buys it from nation B. Cost studies show that if A attempted to produce its own cotton the cost would be higher than B's cotton price. However, the studies also show that A's cost disadvantage is only a short-term problem. If A somehow could begin cotton production it might in time be just as efficient or perhaps more efficient than B. But time and money are required to construct efficient irrigation facilities, train producers, and obtain specialized equipment. To enable A to get into cotton production, a tariff might be added to the price of cotton imports from B so that producers in A could begin to compete in the local market. Through the tariff, the consumers of nation A would pay a subsidy to their cotton producers, hoping that someday the new industry would be efficient. Economists call this the "infant industry" argument for protection.

If a fledgling industry has the political power to obtain a protective tariff, it may have the political power to continue it. When this occurs the infant may never grow up, and consumers may find themselves permanently protecting jobs and incomes in the favored industry.

Protect national security. With trade, specialization in production tends to occur among nations. This tendency toward international specialization might cause a particular domestic industry to shrink below the size considered prudent for strategic reasons.

In times of international upheaval or actual war, trade may shrink or stop entirely. If nation A were dependent upon nation B for the weapons of war, then A would be especially vulnerable. Consequently, many nations maintain industries that produce the essentials of war — food and weapons — even though the principles of free trade dictate otherwise. Maintaining industries not economically efficient reduces a nation's level of living. However, if a nation might cease to exist by losing a war, then its citizens might willingly lower their living standards to protect industries thought to be essential to national defense. These might include agriculture, oil, steel, aircraft, and electronics.

Many nations are substantial food importers. Some would be even larger food importers if full international specialization in food production occurred. But most cling to some minimum level of self-sufficiency for national security reasons. Bitter past experience with food shortages caused by trade disruption and war underpin this policy.

If a particular industry is truly essential to national security, then the argument for raising protective trade barriers is reasonable. However, it is difficult to identify such industries and to assess the trade-offs that their protection involves by lowering national income during peacetime.

Protect national health. The free trade of goods between nations may be restricted for health reasons. The United States prohibits the importation of fresh or frozen beef from countries that have a history of foot-and-mouth disease. Likewise, some nations restrict imports of U.S. frozen poultry, fearing infection of their flocks with Newcastle disease. In some countries, including the United States, metropolitan areas do not permit fluid milk to be sold within their jurisdiction unless the dairy farms, domestic or foreign, have been approved by their own inspectors.

Clearly, governments are wise to regulate trade in products potentially injurious to public health. However, the health argument sometimes is used arbitrarily to protect the economic health of some industry. Trade restraints established for health reasons should be reexamined periodically to see if the hazard really exists.

Protect against "unfair" foreign trade policy. Most trading nations try to restrict imports of competitive goods when they feel exporters are selling excess production below production costs on international markets and disrupting normal trade. Some exporters attempt to dispose of surplus production or capture new markets by offering goods internationally at prices lower than internal levels. Export subsidies, multiple price schemes, and/or tax advantages may be used to do this. Special credit arrangements or price concessions on other export items also may be offered to importers. Selling internationally at prices below domestic production costs is called "dumping." Recently, the Japanese steel industry has been accused of dumping steel into the U.S. market at below-cost prices. In the 1950s and 1960s our Public Law 480 program was viewed by some as mainly a dumping mechanism for surplus U.S. farm commodities.

Consumers of importing nations typically favor the purchase of world market goods offered at low prices. However, producer groups and domestic merchants often succeed in obtaining countervailing duties, quotas, and special restrictions. These are called "antidumping" measures.

Protect domestic programs. When a government supports the market price of any commodity above world levels, some form of import control is required to prevent its being swamped by goods from abroad. This is a very difficult problem for many trading nations which provide farm income support through high, guaranteed prices.

When a national program is established to set market prices above market-clearing or world levels, the amount supplied to that national market, whether from domestic or foreign sources, normally will exceed the amount demanded for consumption. Unless the government operating the program has a bottomless treasury, some means of controlling supplies offered for sale at the support price must be found. Action usually is taken against imports, if there are any, to bring demand and supply into balance at the support price without resorting to unpopular controls on domestic producers. But even if some form of internal production restraint is used, import controls are needed to keep the program from being inundated from abroad. Section 22 import quotas under the Agricultural Adjustment Act of 1933 provide this protection for a number of price-supported U.S. farm products such as grains and dairy products.

Protect the balance of payments. When a nation's payments to foreigners persistently exceed its earnings from them, the country has an international balance of payments problem. If balance of payments difficulties continue, confidence in the nation's currency and economic strength is undermined. As a result, downward pressures develop on the value of the nation's currency relative to other currencies.

To stave off currency devaluation, a government may attempt to reduce payments to foreigners by restricting the entry of imported goods. If the nation's export earnings remain the same, the reduction of imports will tend to bring the nation's international payments account toward balance. However, foreign earnings may not stay the same. They may decrease because: (1) foreigners, earning less of the restricting nation's currency from imports, may buy less from it, turning instead to other

suppliers, and (2) foreign governments may retaliate by raising their own trade barriers against products from the restricting nation.

Improve the international terms of trade. An important importing nation may be able to force down the world price of a traded product by imposing a tariff on it. This will improve the nation's terms of trade. The theoretical rationale for such a maneuver is based upon the ability of the large importer nation to exert monopoly power on international prices and thereby secure more favorable terms of trade for itself. This motive for imposing a tariff is not primarily for protection, but a domestic industry producing this particular item or its substitute will gain protection indirectly. Economists call this the "optimal" tariff argument.

Protect against painful economic adjustment. As economic changes occur around the world, it is inevitable that familiar patterns of comparative and absolute advantage will erode, and new ones will evolve. Previously strong and vigorous domestic industries may find themselves facing heavy competition from imports of foreign goods. This is a clear signal for some economic adjustment.

If the increased import flow and the resulting downward pressure on domestic prices and sales are not caused by dumping by foreign sellers, some domestic producers may be forced either to leave the affected industry, accept lower returns, or become more efficient. For the people involved this often is a difficult and painful choice. For some resources like highly specialized buildings and equipment there may be no choice.

Thus, it is not at all surprising that industrial leaders and their representatives first seek government protection when imports threaten traditional domestic markets. Such threats constitute the main reason for today's protectionist sentiment in the United States. Although other reasons, such as those mentioned earlier, may be presented and argued, the desire to avoid harsh economic adjustment usually lies behind the drive for new or stricter import controls. This is especially true in agriculture and basic industries of trading nations, including the United States. Resources in these industries are traditionally less mobile than elsewhere. Moreover, powerful economic and technical changes quite apart from foreign competition already are at work within these industries.

To accuse adversely affected groups of selfishness, greed, or shortsightedness when they propose higher tariffs and tighter quotas is to be naive about the real problems of economic adjustment. Industrial jobs lost to import competition are not always similar to those that open in other industries, nor are they always located in the same geographic area. The presence of general unemployment throughout an economy can aggravate this picture even further. Specialized machinery, buildings, tools, and other facilities may be rooted permanently in the affected industries with no alternative uses. They will continue to be employed even at low returns until they simply wear out. But we must remember that protecting an industry from onerous resource adjustments means that we sustain higher long-run costs and inefficiencies throughout the economy.

Economic Effects of Import Protection

Who pays when a tariff or a quota is enacted? Suppose the United States imposes a new tariff on natural rubber imports. As prices inside this country increase, the tire industry likely will reduce its use of natural rubber, switching further to synthetic rubber. Prices of other items containing natural rubber will rise, inducing buyers to cut down on their use. Eventually, this will cause a reduction in natural rubber imports, possi-

bly causing a drop in world market prices for natural rubber. Still, the final consumer pays more for items that contain natural rubber. The difference between lower international prices and higher domestic prices is absorbed by the U.S. government as an import duty. The reduction in world demand leads to a reduction in export earnings of rubber exporting countries like Malaysia and Thailand. Thus, foreign producers share the burden of the new import duty with U.S. consumers.

The distribution of this burden between the U.S. and the rubber-exporters depends mainly on two factors — the U.S. share in the world market for natural rubber, and the extent to which other products will be used instead of natural rubber as its price increases. The larger the market share of the tariff-imposing country, the greater the effect on world market prices. Since, in this illustration, the U.S. is the largest single importer of natural rubber, its imports are critical in the price-formation process for natural rubber. The effect of a new import tax likely would be strongly felt in the exporting countries. The burden for U.S. consumers depends on how price-responsive (elastic) the demand for rubber is.

As the natural rubber price rises because of the tariff, consumers will switch toward items using synthetic rubber. To the extent that synthetic rubber is more costly than natural rubber, or lower in quality, consumers will reduce purchases of all rubber-using products. Here, the burden on consumers is reflected in higher prices, lower purchases, and substitution toward synthetic products. The tariff-laden price of natural rubber also will provide protection to the makers of synthetic rubber products. Their prices may increase and sales expand as imports fall.

The overall economic effects are a tax on consumers, an indirect subsidy to the protected industry, and a narrowing of markets and possibly lower prices for exporters. More people and other resources may be employed in the protected industry or remain there longer than otherwise. So it is important to consider: (1) where and how efficiently these resources might be used elsewhere in the economy, and (2) whether a tariff is the best means of insuring both income and employment.

International Adjustments

The behavior of a country in its economic relations with the rest of the world can be likened to that of a family. For a short period a family can spend more than its current earnings by dipping into savings, by obtaining loans, or by selling assets. If this continues savings and assets eventually will be depleted, and the family's credit for more loans will dry up. So, in some way, the family will have to adjust its behavior by reducing its expenditures, raising its income, or both.

The flows of currency between nations largely reflect flows of exports and imports. If a nation's exports exceed its imports, then its central bank accumulates foreign exchange reserves. This is like a family's building up financial reserves through savings. Although central banks accumulate foreign exchange reserves for several reasons, a major purpose is to allow the nation to import more than it exports for some period. When imports exceed exports, a nation's foreign exchange reserves dwindle, threatening its ability to continue importing at the current level.

If a nation spends more for imports than it earns from exports (and any net capital inflow), it is experiencing a "balance of payments deficit." (The reverse is a "balance of payments surplus.") A deficit nation can draw on its accumulated reserves of foreign currencies; it can sell gold; it

can accept credit from other countries, thereby increasing its external debt. Since a country, like a family, cannot incur external debts or sell assets indefinitely, some adjustments must eventually occur.

One remedy likely to be considered first is to control imports by new tariffs, quotas, or voluntary trade restraints negotiated with exporters. As mentioned, this is not a long-run solution. Exports also may fall as foreign nations retaliate with new tariffs and as their export earnings, hence their imports, decline.

A more permanent solution is to enhance the level of the nation's exports by specific national policies which improve the operation of the export sector. Tax advantages and other fiscal incentives to exporters also may be used. However, such indirect solutions to a payments deficit are likely to work over a lengthy period, not quickly.

Adjustments that can occur more quickly involve changes in currency exchange rates through international money markets. Japanese importers of U.S. soybeans pay our exporters in U.S. dollars. Exporters, merchants, and farmers have no direct use for Japanese yen. (Even if an export contract stipulates payment in yen, U.S. exporters would change them into dollars.) The number of yen a Japanese importer has to pay for one dollar is the exchange rate between dollars and yen. This rate is the number of units of one currency that can be exchanged for one unit of another at a given time. Today, the currencies of most trading nations are bought and sold daily on open money markets around the world; their prices in terms of other currencies (rates of exchange) are determined continuously.

The prices of physical commodities like corn or soybeans are determined through the interplay of market demand and supply. The soybean-corn price ratio over time is an indicator of changing conditions between soybean and corn markets. For example, an increase in this ratio reflects a strengthening of soybean relative to corn markets. Exchange rate changes between the yen and the dollar have a similar interpretation. If this rate dropped from 250 yen for one dollar to 200, the yen "went up," and the dollar "went down." In other words, the yen became more expensive and the dollar became cheaper. The Japanese importer now has to give up only 200 yen to buy one dollar. Before it was 250.

What caused this exchange rate change? The demand for yen relative to its supply in international money markets has increased in comparison with the dollar. Consider how this occurs. When a nation like the United States has a sizeable trade deficit, more of its currency is paid to foreigners than is being earned. These excess dollars in foreigners' accounts exert downward pressure on the price of dollars in terms of other currencies to the extent that foreigners sell excess dollars for their own or other currencies. In an open currency market like this, the yen price of dollars will "float" down. Similarly, the dollar price of yen will increase. Over periods of weeks and months, the value of a deficit nation's currency will fall, and that of a surplus nation will rise.

These exchange rate adjustments will push international accounts toward a balance as: (1) the international prices of deficit nations' exports fall in foreign currency terms, and (2) the international prices of imports increase in domestic currency terms. Governments may try to stave-off such adjustments by having central banks purchase or sell large amounts of currencies on money markets or by directly blocking exchange rate changes via administrative controls. Many other complexities of international finance affect the balance of payments, but they are beyond this chapter's scope.

Concluding Comments

The theory of international trade as it has evolved over the past 150 years does not attempt to exhaust the reality of modern commerce. By means of simplification and abstraction, it tries to lay bare the crucial long-run forces at work in international exchange. It tries to help us understand and analyze economic events based on a plausible and internally consistent structure of ideas. It does not do a complete job because the theory is not a perfect reflection of the world, and vice versa. Moreover, the logic and application of trade theory need not always imply completely free trade as a national policy.

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3

Interrelationships of Domestic Agricultural Policies and Trade Policies

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Introduction

Chapter 1 presented a review of world trade institutions and the historical development of U.S. trade policies. Chapter 2 presented the theoretical basis for why trade among nations takes place and the devices nations sometimes use to restrict trade. In this chapter we focus on interrelationships between domestic agricultural price and income policies and international trade policies of principal trading countries. It is divided into five parts: (1) a brief review of the objectives of domestic farm policies and the tendency for trade policies to accommodate domestic policies; (2) the economics of interdependence between trading nations; (3) the effects of United States domestic agricultural and trade policies; (4) the effects of domestic agricultural and trade policies in other principal trading countries; and (5) conclusions and implications for the United States.

Domestic Farm Policy Objectives and their Implications for Trade

The objectives of general economic policy in most nations include full employment, price stability, adequate economic growth, productive efficiency, and equitable distribution of income. Different countries place different emphasis on each of these objectives depending upon the time and the stage of economic development. Furthermore, each country has its own interpretation of "adequate," "efficient," and "equitable."

In the early 1930s, during the Great Depression, many countries attempted to maintain employment and increase incomes through vari-

ous policy measures. These were extended to agriculture to stabilize farm prices and incomes because it was believed that instability in the agricultural sector posed an important source of instability for the general economy.

As economic growth has occurred and per capita incomes have risen since World War II, the industrial sector of every developed economy has expanded relative to the agricultural sector. Agriculture's share of the gross national product and employment of the labor force both declined. Therefore, since World War II, instability in the agricultural sectors of developed countries has had a smaller impact on the general economy. As problems of instability were perceived to be of less importance, equity considerations became the driving force behind direct government involvement in agriculture. Nevertheless, the recurrence of economic instability in the early 1970s raised again questions of how instability in the agricultural sector affects the general economy.

Technological Transformation of U.S. Agriculture

Since the early 1950s U.S. agriculture has undergone a technological transformation which greatly increased resource productivity and output potential. Capital in the form of chemical, biological, and mechanical innovations was substituted for land and labor. Increased output in the face of an inelastic and slowly growing demand tended to depress farm prices and incomes, thus creating the necessity for labor resources to shift out of agriculture and for other modifications in resource use, such as growth in farm size, to occur. Although large resource adjustments occurred, per capita incomes in agriculture still lagged behind the nonfarm economy.

Policy efforts to support farm income made use of such measures as price supports, storage programs, direct payments to producers, subsidized inputs, acreage allotments, and marketing quotas—to name a few.

The technological transformation of U.S. agriculture has been of fundamental importance in the development of U.S. agricultural policies. Similar but possibly less rapid technological change also has characterized agriculture in most other developed countries. Even so, the policy response of a particular country has been highly individualistic, depending upon its particular set of circumstances, its policy goals, and the set of policy instruments it considers acceptable.

Farm Policy Variations between Countries

In the United States, Western Europe, and Japan price support policies were developed with the objectives of maintaining farm income while capital was substituted for labor. In the United States, labor shifted out of the sector rapidly, while in other developed countries policies tended to hold labor in the agricultural sector. In Western Europe agricultural policies placed much less emphasis on increased efficiency available through land consolidation, although some moves in that direction have occurred.

Both developed and less developed countries (LDCs) who are net importers of agricultural products have had a goal of increasing domestic food production. Western Europe and Japan in particular have emphasized the objective of self-sufficiency in food production in the interest of national security. A deliberate decision has been made to sacrifice economic efficiency which could be attained through greater dependence on trade in agricultural products, for greater national security and protec-

tion for their own producers. The costs of these policies continue to be debated.

Developed countries such as the U.S. and Canada, which have large net exports of agricultural products, have adopted trade policies designed to exploit the comparative advantage they have in the production of export products. They have sought increased access to foreign markets for agricultural products which would permit them to increase their foreign exchange earnings.

The European Community (EC) grains policy represents an example of a domestic farm program that requires interference with trade in grain. Under the Common Agricultural Policy (CAP) of the EC, prices of grains are supported at a level above world export prices. Prices to producers are maintained through a system of government purchases and limits placed on imports. A duty is set equal to the difference between the lowest offering price for grain in the port of Rotterdam and the domestic support price. It is recalculated daily and, therefore, keeps imported grain from selling for less than domestically produced grain, regardless of how world market conditions change. Export subsidies are then used to dispose of stocks when excessive levels are reached.

In LDCs increasing agricultural exports is one of the few means available for earning essential foreign exchange to acquire capital investment goods and the technology necessary for modernization and development. Likewise, foreign exchange is needed for acquiring consumer goods not locally available. However, rather than attempting to expand production of those goods in which they have a comparative advantage, many LDCs have followed import substitution (produce-at-home) policies under the assumption that this approach contributes more to economic development. With this approach infant industries often are protected in hopes that such industries will become competitive and able to supply domestic and export markets. In addition trade often is restricted in an attempt to correct balance of payments deficits rather than rely on more general economic and monetary policy.

With the exception of a few countries such as West Germany, the Netherlands, and Japan, the trade sector is generally much smaller than the domestic sector of the economy. Since the trade sector is a smaller sector, benefits from increased exports tend to accrue, at least initially, to only a part of the total economy. Likewise, large benefits from restricting imports may accrue to a small number of domestic producers who compete for the same market. The higher costs to consumers are spread over a large number of people. But even when the costs to each consumer have reached significant levels, they generally have not been able to generate significant political opposition to the import restrictions.

Dominance of Domestic Policy

When trade policy objectives conflict with domestic policy objectives, in both developed economies and LDCs, domestic policy almost always dominates. As a result, trade in certain agricultural products may be selectively restricted even when the country's general policy is to promote freer trade. U.S. dairy trade policy is a good example of such an accommodation. Imports of manufactured dairy products are restricted to a small percent of domestic consumption, even though the United States follows a policy of negotiating for freer access for its exports to other countries' markets. The grains policy in the EC is another example of a domestic farm program that requires interference with trade.

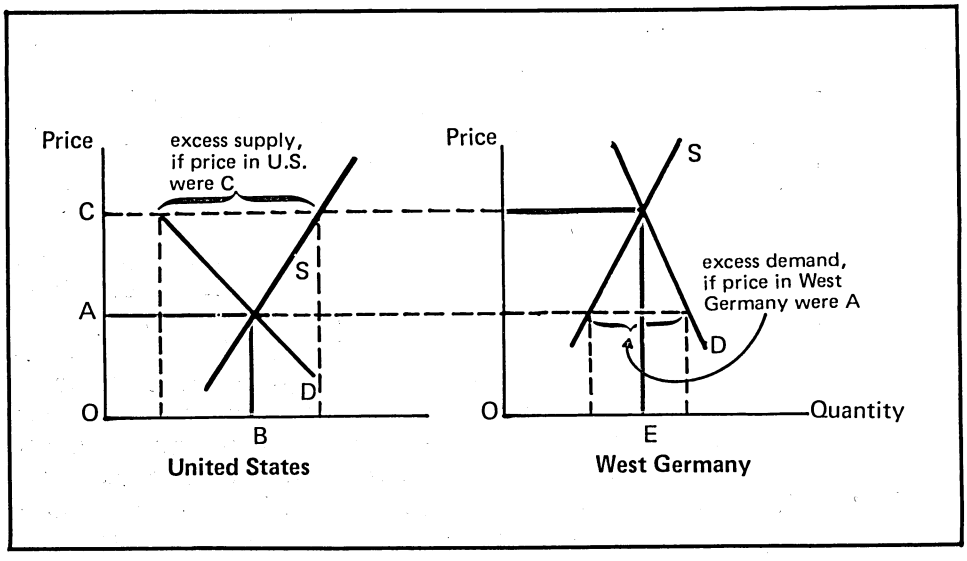
The Economics of Interdependence among Trading Nations

This section presents a graphical technique which serves two purposes: (1) it illustrates the interdependence among agricultural sectors of countries which are linked together through international trade, and (2) it provides an analytical tool which permits one to analyze the effect of various trade and domestic policy measures. More specifically, it will show that export quantities are determined by price rather than a "surplus" in an exporting country or a "shortage" in an importing country.

The framework is based on conventional economic logic. When the price of a product rises, its producers respond by supplying more of the good to the market; consumers respond by demanding less. When the price falls, consumers demand more and producers want to supply less. This behavior can be represented for a given product, say wheat, as in figure 1. An upward sloping supply curve, labeled S, and a downward sloping demand curve, labeled D, can represent the collective behavior of all suppliers and demanders, respectively, in an economy. The two graphs in figure 1 illustrate hypothetical supply and demand curves for two countries—e.g., the United States and West Germany. For now, assume the two countries are isolated or out of contact from world trade in the commodity represented by the graphs. (In this sense they are "closed" economies—i.e., closed to foreign trade.) The points where the supply and demand curves in the two graphs intersect are the only price-quantity combinations at which both consumers and producers are satisfied in each country. In this sense the price A and the quantity OB are equilibrium dimensions in the United States, as are price C and quantity OE in West Germany.

In this example the equilibrium price C in West Germany is much higher than the price in the U.S. This would be the situation in free market economies if West Germany's resources were not as well-adapted to production of the commodity as U.S. resources. If the high West Germany price C prevailed in the U.S., our producers would produce more than OB and consumers would buy less. There would be a surplus or excess supply in the U.S. at that price. If the low U.S. equilibrium price

Figure 1. Illustration of Domestic Supply and Demand Curves in the United States and West Germany when Considered to be Closed Economies



A prevailed in West Germany, their producers would supply less than OE, and their consumers would try to buy more. Then there would be a shortage or excess demand in West Germany.

At various differing prices in each market a different quantity of excess supply in the U.S. (or *excess* demand in West Germany) would be obtained. These quantities may be plotted against price on another graph as excess supply and excess demand curves, as in the center panel of figure 2. (The two outer panels reproduce the two graphs from figure 1.) These curves (or lines) can then be interpreted as export supply and import demand relationships. This illustrates that a *different* quantity of export supply or import demand is associated with every price in each market. At the closed economy prices of A in the U.S. and C in West Germany, the quantity supplied for *export* by the United States and the *import* quantity demanded in West Germany both equal zero. The center panel represents the world market which can be in equilibrium only when the amount traded equals both the export supply quantity and the import demand quantity.

Now assume that the barrier to trade that existed between the two countries is removed; i.e., the economies become open to trade. When trade is permitted the price rises in the United States and falls in West Germany until the export quantity in the United States exactly equals the import quantity in West Germany. In the U.S. at price G (=W), consumption falls from OB to OH, and production increases from OB to OF. In West Germany consumption increases from OE to OM at price Z (=W), and production falls from OE to OJ. Exports from the U.S. equal imports of West Germany (HF=OU=JM). Prices are equalized in all markets at G=W=Z.[1] The important lesson from this is that when trade is permitted, internal market prices in each trading country are determined by both the domestic market and world markets.

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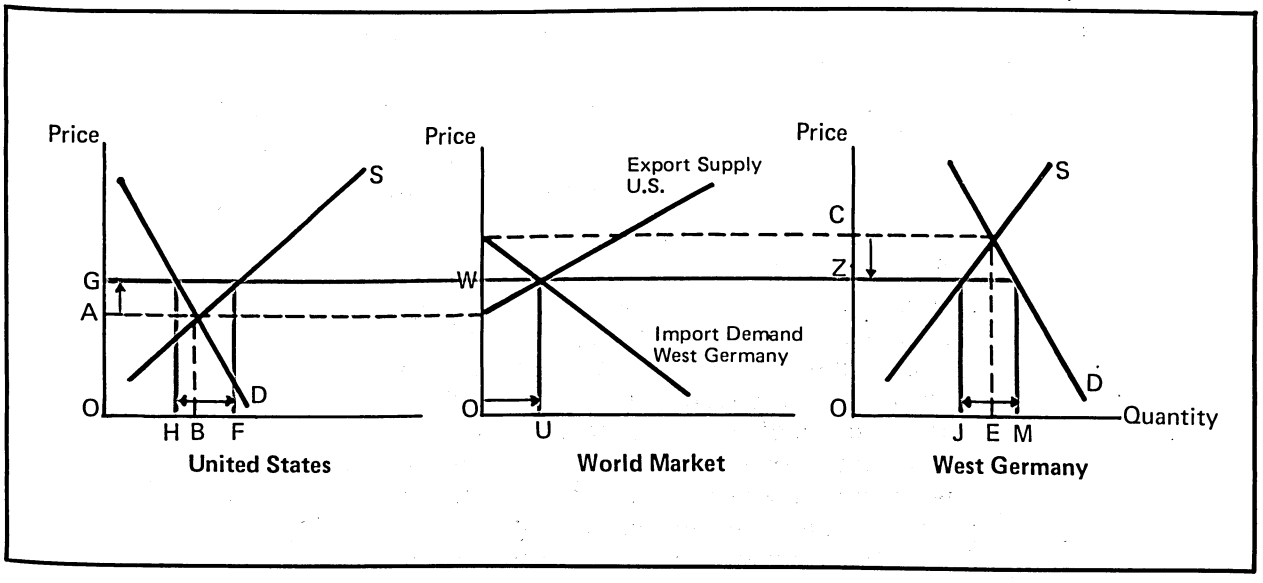
[1]A constant exchange rate between the currencies of the exporting and importing countries is assumed here. The effects of changing the exchange rate are discussed later in this chapter. Transportation costs are ignored for now in the analysis, but they too are discussed later in the chapter. The reader is reminded that this framework treats only one commodity or product at a time. It assumes that all other input and output prices, real per capita income, population, production technology, and consumer tastes and preferences in each economy are assumed not to change.

Figure 2. Illustration of the Effects in the United States and West Germany after Opening-Up International Trade



The analytical framework presented in figure 2 can be used to illustrate the effects of changes in demand or supply in either the United States or West Germany. Likewise, it can be used to illustrate the effects of domestic policies or trade policies imposed by either of the two countries. For example, a change originating in the United States will shift either the domestic demand or supply curve, depending upon its source. This will bring about a shift in the U.S. export supply curve which will affect the quantity and price in the world market. This in turn will determine the quantity and the price of the product imported by West Germany. A change originating in West Germany will cause its import demand curve to shift. Effects of this shift can be traced through to the United States. Thus, the graphical approach portrays the interdependence of two countries linked by a connecting "world" market for a particular product.

The graphical approach also illustrates how all consumers and producers are affected by changes originating in either country. For example, in figure 2 when trade was opened up between the two countries German consumers benefited. They were able to acquire a larger quantity of product at a lower price. German producers, however, would receive lower prices for their product and would sell a smaller quantity. On the other hand U.S. producers would benefit from higher prices and would expand their output. U.S. consumers would pay a higher price for a smaller quantity of the product as exports expanded.

The analysis indicates why either producer or consumer groups may favor protectionist policies over free trade, even though total world output and welfare are increased as explained in chapter 2. The model, as presented in figure 2, represents a simple two-country world, the U.S. and West Germany, but it can be expanded to include more than one importing country. The figure on the right can include aggregations of domestic demand and supply curves for all other trading countries; i.e., all importing and all other exporting countries in the rest of the world (ROW). The import demand curve in the center figure would represent world import demand as viewed by the U.S.

With this introduction to the benefits and cost of trade, we turn now to examine policies used to protect domestic markets from import competition. The reader can skip the following graphical presentations without losing continuity of the analysis if he or she prefers, as the framework also is presented in the text. Elaboration of each figure is included in notes below the figure.

Effects of United States Domestic Agricultural and Trade Policies

U.S. Price Support

For most of the period since the 1930s the U.S. government supported wheat, feed grains, and cotton prices at levels above the world price with the objective of raising U.S. farm income above what it otherwise would have been. Prices were supported through nonrecourse loans to farmers and government purchase programs.

When the loan rate is set above the market price the government loan rate becomes the price to which consumers and producers respond, since producers can turn the commodity over to the government at that price. At the higher price consumers reduce their purchases, and producers

increase their sales (figure 3). The quantity *available* for export increases. But at the higher price the rest of the world (ROW) will purchase less of the commodity.

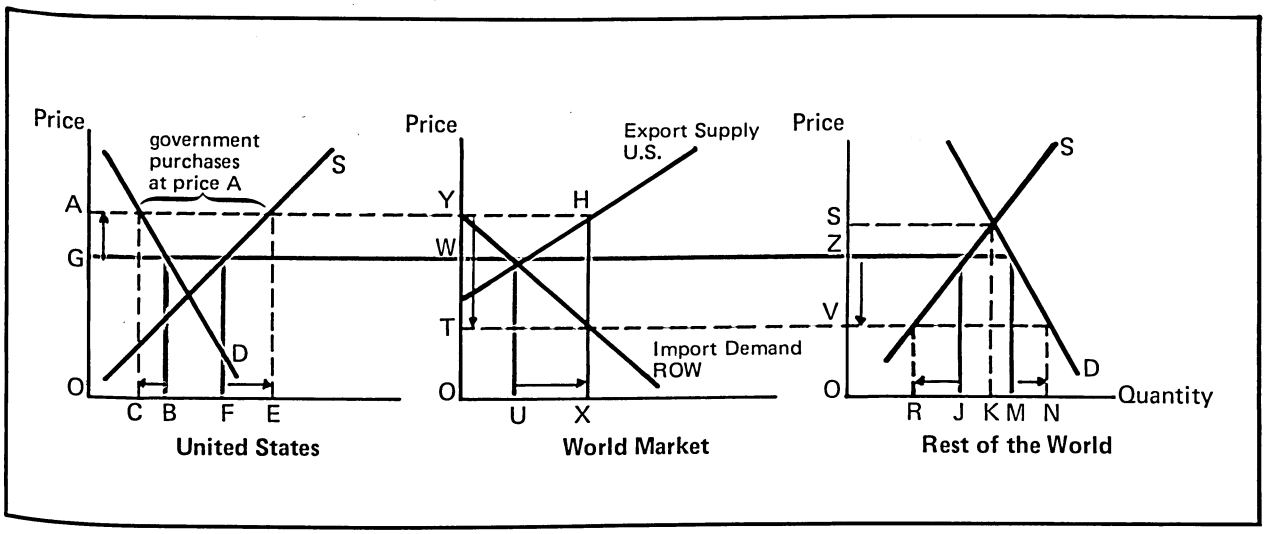
If U.S. support prices were set sufficiently high, exports would cease and imports of the commodity would be attracted into the U.S. In order to avoid this possibility, Section 22 of the Agricultural Adjustment Act of 1933 provides for the use of quotas and duties for limiting the imports of those commodities for which price supports are in effect.

When the U.S. supports its grain prices above the international market clearing equilibrium price, stocks are accumulated in the U.S. and less is imported by other countries. Domestic prices in the importing countries tend to rise. Foreign producers expand their production to make up for part of the quantity formerly imported. Consumption is less than before prices were raised in the U.S.

As storage stocks increase and storage costs escalate in the U.S. various means are sought for disposing of the surplus. This requires either export subsidies or controls on production to keep stocks from continuing to grow.

Export subsidies paid to grain exporting firms enable them to buy grain at the internal market price and sell it at the lower world price. An alternative to the subsidy is for exporting firms to export grain they have

Figure 3. Illustration of the Effects in the United States and the Rest of the World of a Price Support Policy for Grain in the United States



Without price supports in the U.S., prices would be equal in the U.S. and the rest of the world (ROW); i.e., price G = price W = price Z. When prices in the U.S. are supported at price A, consumption in the U.S. is reduced from quantity OB to quantity OC; production increases from quantity OF to quantity OE. The government would be required to purchase the difference between the amount produced, quantity OE, and the amount consumed, quantity OC. Government purchases would be CE. If the U.S. prices itself completely out of the export market by setting its price at A (import demand at price Y—which equals A—is zero), production in ROW would increase from quantity OJ to OK. Consumption in ROW would decline from quantity OM to OK, and price would rise to S.

If the U.S. decides to dispose of its stocks in the export market, an export subsidy would be required. Exporting quantity OX would cause the world price to fall to T so that the subsidy on each bushel would be equal to the difference between the U.S. price A and the world price T. The price in ROW would decline to V; production would decline to quantity OR, and consumption would increase to quantity ON. ROW imports would then be the quantity RN, which equals OX. The effect of the U.S. price support and export subsidy program is to raise the price, reduce consumption, and increase exports in the U.S., and reduce prices and increase consumption in the rest of the world.

acquired from the market and have it replaced with grain from Commodity Credit Corporation (CCC) stocks at export prices. In this case the CCC assumes the loss—equivalent to the export subsidy in the former case.

Credit is required to facilitate the transfer of grains between exporters and importers. The bulk of this credit is supplied by or through grain exporting companies and private banks. Government subsidized credit also is available for increasing trade. The CCC is authorized to provide a limited amount of credit on an intermediate term basis at rates below the market rate to selected foreign buyers in cases where it is determined that sales could not be made without extension of this type of credit. This represents an export subsidy which is of smaller magnitude than the direct subsidy paid on each unit exported.

Other forms of export subsidies to reduce government stocks are included in Public Law 480, the Agricultural Trade Development and Assistance Act of 1954, discussed in chapter 1.

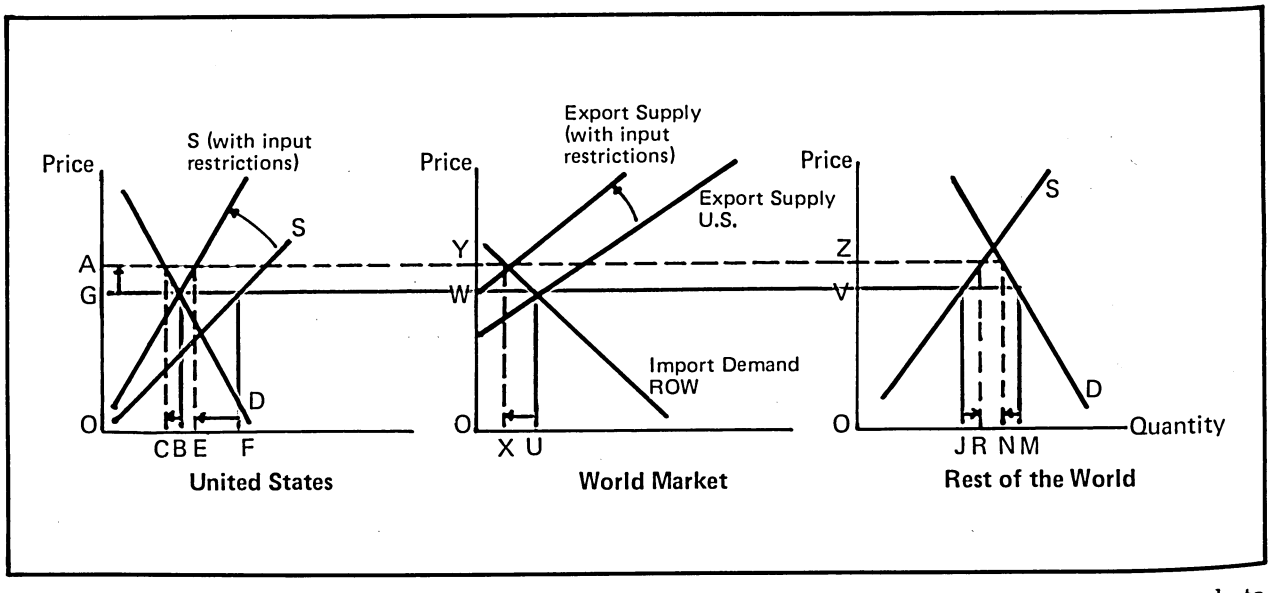
The extent of the export subsidy for P.L. 480 commodity shipments depends on the method used for disposing of grain. Such shipments reduce U.S. government stocks and increase consumption of the commodity in recipient countries. The imported commodities lower prices in the importing country and tend to discourage local farmers from increasing their production.

Programs that Limit Farm Output

Reducing the amount of grain produced at the government support price is an alternative means for reducing stocks and for supporting farm income. Production may be reduced through a system of marketing quotas or by paying farmers to hold land out of production.

Input restriction programs, such as land diversion or set-aside programs, tend to reduce production of the particular commodity. A reduc-

Figure 4. Illustration of the Effects in the U.S. and the Rest of the World of an Input Restriction Policy in the United States



Input restrictions could take the form of acreage allotments or payments made to farmers to hold land out of production. Input restrictions cause the S curve in the U.S. to shift up to the left. Subsequently, the export supply curve of the U.S. shifts left also. The equilibrium price in all three markets increases; consumption and production in the U.S. decline. Exports decline from quantity OU to OX. Consumption in the ROW declines, and production increases to substitute for part of the export reduction.

tion in U.S. supply also reduces the quantity available for export (figure 4). As a result the equilibrium price increases in both the U.S. and foreign markets. Both production and consumption fall in the U.S. with production tending to decline more than consumption. Production increases and consumption declines in the ROW due to the higher world price.

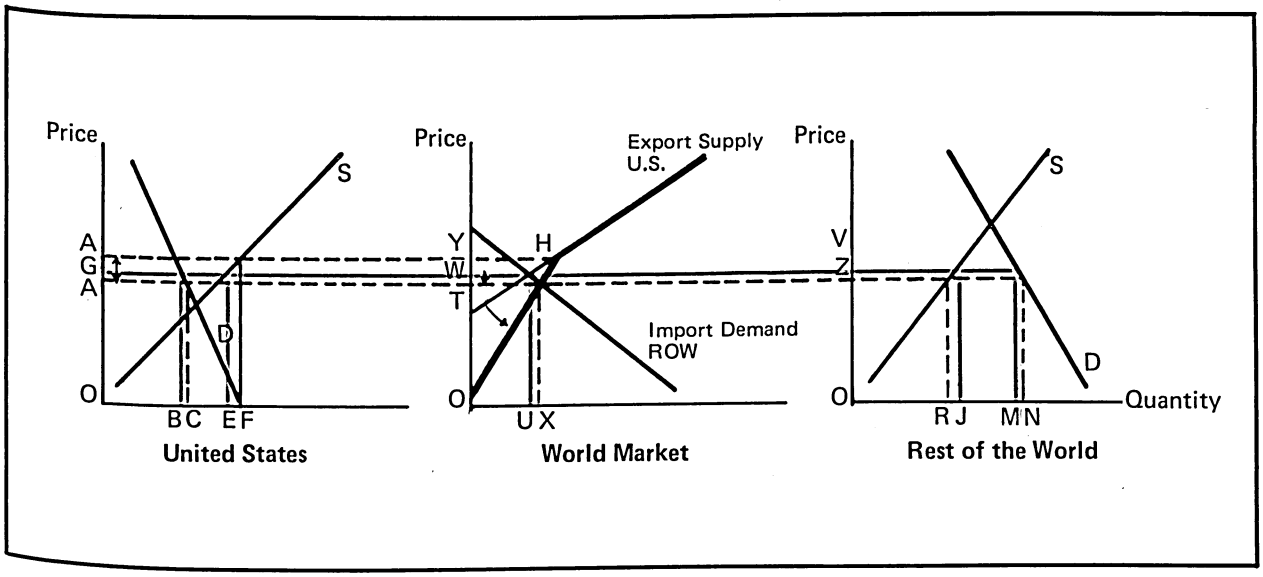
Deficiency Payment Programs

A deficiency payment program also may be used to raise farm incomes. In this case the government guarantees farmers a target price above the market price, stimulating larger production. However, rather than buying up the excess, as with price supports, the whole crop is sold for whatever price the market will bear. Then the government makes up the difference between that price and the guaranteed price by a "deficiency payment" to the farmer.

Various forms of deficiency payments have been used to support U.S. farm income. The Emergency Feed Grain Program of 1961 included direct payments per bushel of corn on allotted production. The 1973 Agriculture and Consumer Protection Act incorporated the target price concept in addition to the loan rate for specified commodities. The Food and Agriculture Act of 1977 contains provisions for target prices and deficiency payments.

If no limits are placed on production, a target price when above the market price stimulates larger production (figure 5). With larger production the international market clearing price declines and exports

Figure 5. Illustration of the Effects in the U.S. and the Rest of the World of a Deficiency Payment Policy in the United States



If the target price in the U.S. is set at A, which is above the equilibrium price G, production would be increased from quantity OF to OE. Even though the market price in the U.S. might fall below the target price, the quantity produced would be maintained at quantity OE since producers are assured of the target price as a minimum price. In effect, this means that the U.S. supply relation is vertical from quantity OE up to the point where it joins the S relation at target price A.

The segment OH now replaces part of the export supply curve in the world market. The new export supply curve is the bold black line. Exports from the U.S. to ROW increase from quantity OU to OX. The world market clearing price falls from W to T and by equal amounts in the U.S. and ROW. Consumption in both the U.S. and ROW increases, but production in ROW declines.

increase. U.S. consumption also increases as a result of the lower market price. A deficiency payment would be required on each unit of production.

There are important differences in the trade effects of this approach and the cases of supporting farm incomes by using either loan rates or input restrictions. In those two cases exports fall as the U.S. raises its prices, in effect tending to price itself out of the export market. With deficiency payments the market is permitted to clear by letting the price to consumers and the export price fall. The Treasury cost of the deficiency payments may be higher or lower than the cost of a price-support program depending upon how much import buyers increase their purchases at the lower export prices.

Changing Policy Directions

Since the mid-1960s U.S. agricultural policies for supporting farm incomes have depended less on high loan rates and export subsidies and more on land retirement and direct payments to farmers. Beginning in 1961 with the emergency feed grain program, direct payments were substituted for high price supports. These payments were made to farmers rather than providing income support only through nonrecourse loans. With the consumer price level in the 1960s increasing 1 to 3 percent per year and lower price supports in the form of lower loan rates, the real price of grains declined. Larger exports became possible with less dependence on export subsidy while incomes to farmers were supported.

However, during the late-1960s and into the 1970s the fixed dollar exchange rates became increasingly overvalued. This had the same effect as though a tax had been placed on all U.S. exports and a subsidy given on all imports. The direct payments provided some compensation to grain farmers for the implicit tax on exports. (This is discussed further under the section on LDCs.) Restrictive dairy and meat import policies also provided some protection for the subsidized imports associated with the overvaluation.

The export subsidy program ended in 1972 as government grain stocks were depleted following the large sale of wheat to the USSR. The 1973 Agriculture and Consumer Protection Act incorporated the target price concept in addition to the loan rate for specified commodities. Separation of income and price support was to facilitate the continued movement of commodities into export markets. The 1973 act provided minimum loan rates and target prices for wheat, feed grains, and cotton at levels which turned out to be below market prices throughout the life of the act. Export subsidies were not required. For a short time in 1973 and 1974 import quotas authorized under Section 22 were lifted for wheat and dairy products. Only a very small amount of wheat was imported while manufactured dairy product imports increased significantly before the suspension was ended.

The Food and Agricultural Act of 1977 raised the level of target prices and loan rates for wheat, feed grains, and cotton, while maintaining the concepts that had been introduced in the 1973 act. Following past practice, no target price was established for soybeans. Annual adjustments in target prices are provided after 1978, based on changes in costs of production. The target prices provide the basis on which deficiency payments are made to producers. The 1977 act provides minimum loan rates which

are below the target prices for 1978 to 1981. The loan rates are not automatically increased like the target prices and may be adjusted downward if they tend to keep grain from moving into export markets. The act also gives the Secretary of Agriculture considerable discretion to raise loan rates if he considers that higher loan rates would not significantly interfere with maintaining exports.

The exchange rate of the dollar declined further after establishment of the initial loan rates for 1977 and 1978, although more with respect to the German mark and the Japanese yen than with most other currencies. This provides some offset to the higher support prices, so they will interfere less with exports than otherwise would have been expected.

No direct price support programs similar to those for grains and cotton exist for fruits, vegetables, or processed foods. However, limited price support is provided for some of these commodities. Marketing orders which provide for separation of markets or make other provisions for orderly marketing tend to provide some price support. Also, domestic programs such as school lunch programs, food stamps, and discretionary government purchases under other programs which increase demand provide a limited amount of support for these products. These products are influenced also by price supports on grains and cotton to the extent that they all compete for many of the same production resources. Occasionally export subsidies have been used to move fruits, vegetables, and processed foods into export markets.

The U.S. imports three principal groups of commodities which compete with domestic production—dairy products, beef, and sugar. The 1977 Act continued price support for dairy products through purchase of manufactured dairy products. Since U.S. price levels attract manufactured dairy products into U.S. markets, Section 22 continues to be used to restrict their import.

No direct price support program exists for supporting income to beef producers, although the Meat Import Act of 1964 provides a quota system that limits imports of beef. Limits on imports have the same effect as a price support system. The quota procedure includes a growth factor which allows imports to grow as the U.S. beef market expands.

Notification of impending imposition of the quota and discussions with importers have kept beef imports from rising to the trigger point which would cause imports to be stopped. The imported beef competes mainly with cow beef and lower grade beef used in hamburger and processed foods markets, rather than with the higher-grade, grain-fed beef market in the U.S.

The Sugar Act was not extended after 1974, and for a short time domestic sugar producers were exposed to competition from foreign producers. However, the 1977 Food and Agriculture Act reestablished a price-support loan and purchase program for 1977 and 1978 crops of sugar cane and sugar beets.

About one-half of U.S. agricultural imports consist of products which are considered complementary to U.S. products; i.e., they are not produced in commercial quantities in the U.S. The list includes bananas, coffee, cocoa, tea, rubber, spices, and other tropical products. No import duties or quantitative restrictions are imposed against these products. However, when U.S. currency is overvalued in foreign markets, imports are in effect subsidized to the extent of the overvaluation.

Effects of Domestic Agricultural and Trade Policies in other Principal Trading Countries

Almost 50 percent of all agricultural trade occurs between developed countries. Developed countries import over 70 percent of all traded agricultural products. The first part of this section analyzes policies of major developed importers. This is followed by analysis of policies used by major exporters other than the U.S. A final subsection considers the policies followed by LDCs, a group of highly diverse countries in terms of production and trade, which includes both net exporters and net importers.

Major Developed Net Importers

European Community (EC). The European Economic Community (EEC) was established in 1957 by the Treaty of Rome. Members included West Germany, France, Italy, The Netherlands, Belgium, and Luxembourg. On January 1, 1973 the United Kingdom, Ireland, and Denmark joined the Community. In the interim the name was shortened to the European Community (EC), as the institutions of the EEC were integrated with those of the European Coal and Steel Community and the European Atomic Energy Community.

Initial steps were taken in July of 1962 toward formation of a Common Agricultural Policy (CAP) which would unify the agricultural policies of the six original members. The CAP became effective in July 1967. It is a complex system which includes support prices for producers, government purchase and storage of commodities, and direct payments to producers. A system of variable levies and import licenses is used to keep lower-priced imports from interfering with the domestic support system. The system is designed to protect the agricultural sectors of the member countries from outside competition.

In addition to protecting producer incomes, the CAP has objectives of: (1) improving the efficiency of agricultural production in member countries through consolidation of fragmented landholdings and increased mechanization, and (2) increasing the level of self-sufficiency in food production of the combined membership. The overriding objectives, however, are price stabilization and increasing producers' incomes.

Grains policy is the key element in the CAP. "Adequate" income for the farm sector is to be attained through a system of support prices for grain. Except for a short period in 1973 and 1974 when world grain prices rose sharply, EC prices have been significantly above world grain prices.

The support system has three main elements: target price, intervention price, and threshold price. The Ministers of Agriculture from each country jointly decide the level of the target price in consultation with representatives of producers. The decision considers changes in costs of production. Prices are announced each August for the following production year. The target price is the key element in the system, with other prices tied to it.

The target price or desired wholesale price is set at a level which is expected to provide "adequate" income to the sector. A wholesale price is determined for the greatest grain deficit region in the EC—Duisburg-Ruhrast, West Germany. The intervention price is set about 8 percent below the target price. It is the price at which national intervention agencies must buy cereals offered or pay for private storage. The intervention prices vary throughout the EC depending upon the distance from

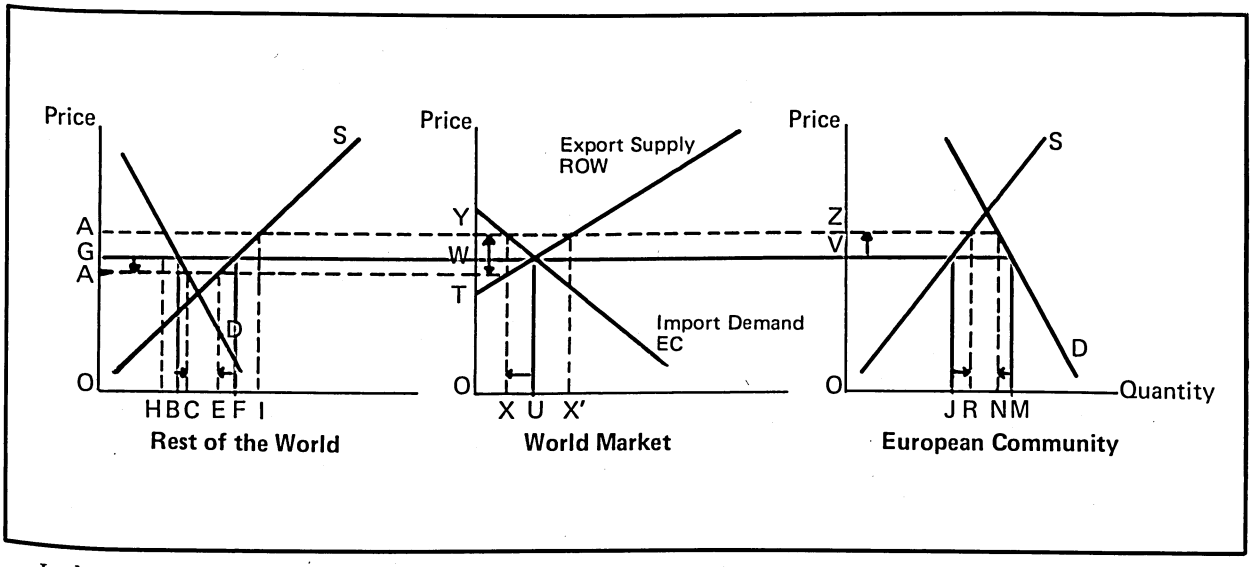
the basing point, with the price being lower than the Duisburg-Ruhrast price by the cost of transportation to that area. Corn is an exception since the CAP provides for a single intervention price if domestic marketings are less than 45 percent of domestic consumption.

When the EC establishes a price above the international equilibrium price it must be prepared to buy all grain offered to it at the intervention price. To avoid being flooded by imports at the higher-than-equilibrium price, import quotas or duties are required to limit imports. A duty which limits imports sufficiently to maintain the EC internal price causes prices to decline in the ROW. After the duty is imposed, prices in the ROW are lower than the international equilibrium price. Production in the ROW declines and consumption increases.

The EC controls grain imports through a system of variable levies and threshold prices. A threshold price is calculated in order to protect the target price. It is the minimum import price in Rotterdam and is equal to the Duisburg price less cost of transport from Rotterdam to Duisburg.

To ensure that the actual import price is equal to the threshold price a levy is calculated equal to the difference between the threshold price and the lowest import price offered at Rotterdam. It is calculated and reset every day. When the import price exceeds the threshold price, the levy drops to zero. It is a *variable* levy in the sense that as market conditions change from day to day, the tax or levy changes just enough to accommo-

Figure 6. Illustration of the Effects in the Rest of the World and the European Community of a Price Support Policy in the European Community



In this example the EC establishes a support price Z, above the international equilibrium price V in the EC and price W in the world market. If the EC were to agree to purchase all grain offered at the support price Z, it would be supporting world market prices at that level. In that case, EC production would increase from quantity OJ to OR, and consumption would decline from quantity OM to ON. Import demand would decline from JM to RN (OU to OX). In an open economy, the world market would offer OX′ (=HI) of exports. Production in the ROW would be increased from quantity OF to OI. The EC would have to buy up stocks equal to XX′ at the price Y.

To avoid having to buy quantity XX′, the EC must restrict imports. It can use an import quota or a duty to do this. As imports are restricted to quantity RN (=OX), price in ROW falls to A and to price T in the world market. Production declines in the ROW and consumption rises. As noted, consumption in the EC declines from quantity OM to ON and domestic production rises. EC citizens pay a higher price and get less product as a result of the EC policy. Prices are depressed in the ROW.

date the domestic target price. As long as the threshold price exceeds the import price, the variable levy effectively buffers the internal EC grain market from fluctuations in world grain prices. When the import price is above the target price, export taxes and quotas are used to keep internal prices from exceeding the target price level.

EC grain trade is further controlled by licensing imports and export transactions. The licenses are issued for a limited period of time and require a deposit on intended transactions. The deposit is to assure that the transaction is completed during the licensed period under penalty of forfeiture of the deposit. Every type of grain is treated separately under target prices and import levies, even though feed grains are close substitutes. Soybeans and their products are not subject to the variable levy system.

Because the variable levy differs among grains, the proportions in which raw materials are used in processed feeds are significantly different from those in the U.S. or other more market-oriented systems. Tapioca chips, corn gluten meal, soybean meal, and other products against which no variable levy applies are used in greater proportion in EC livestock rations. As a result of the selective application of variable levies, livestock rations may consist of large amounts of low-protein carbohydrate sources such as tapioca chips supplemented by large amounts of soybean meal, which is low in price relative to feed grains.

The pricing system is further complicated by the currency used for establishing the target prices and the related intervention and threshold prices. All are set in units of account, an artificial currency originally set at par with the U.S. dollar. Since floating exchange rates came into use, fixed exchange rates (the so-called "green rates") have been maintained between each member country's currency and the unit of account for use in administering agricultural price policy.

Use of the green rates tied to an artificial unit of account means that prices of farm products can vary substantially among member countries although a basic objective of the CAP is a system of common prices for all EC countries. Prices tend to be higher in those countries with weak currencies and lower in those with strong currencies. In trying to minimize these price discrepancies and their impact on trade among member states, the EC has used offsetting border taxes and subsidies. These represent a return to the system of price differences and duties which were in effect prior to implementation of the CAP in 1967. They represent a further cumbersome step in pricing products. Problems with these complex taxes and subsidies have led to repeated efforts to abolish the green rates or at least bring them closer to market rates. But all the proposed solutions would bring about changes in national agricultural prices, the very thing that the member states sought to minimize with introduction of the green rate; therefore, no quick solution appears in sight.

Although grain price policy is the cornerstone of the CAP, livestock prices are supported also. By 1970 about 90 percent of agricultural production was under EC regulation. Negotiations among member countries are moving toward bringing virtually all EC farm production under joint Community control.

In addition to grains intervention prices are set for sugar, rapeseed, sunflowerseed, olive oil, beef, butter, nonfat dry milk, certain Italian cheeses, and tobacco. Minimum import prices are established for dairy products, beef, pork, poultry, eggs, olive oil, sugar, wines, certain fresh

fruits and vegetables, and tomato concentrates, in addition to grains. Thus, the system of support for livestock products varies among commodities. Intervention prices, minimum import prices, variable levies for some products, and direct payments to producers are among the instruments used.

As surplus agricultural commodities have been acquired by the intervention agency, export subsidies (restitution payments) have been used to move products into the export markets. In some cases products have been exported for as little as one-fourth their acquisition costs. The CAP contains no provisions for supply control. However, as surplus commodities (particularly butter) have accumulated, modest programs have been used to encourage the slaughter of dairy cows and the retirement of dairy farmers above a specified age from farming.

After 10 years experience with the CAP, the EC has become self-sufficient in some products formerly imported—notably wheat. Although wheat is imported in order to acquire the desired mix of wheat varieties for domestic consumption, domestic wheat is subsidized into livestock feeding and exports may be subsidized. Imports of soybeans and soybean meal which are not subject to the variable levy have continued to increase. Likewise, imports of feed grain substitutes not subject to the levy, such as tapioca chips, have increased substantially.

Both farm prices and consumer food prices are more stable than in the United States. EC consumers were not required to adjust their consumption of grain and livestock products as world grain supplies varied during the 1972-75 period to the extent that consumers in many other countries found necessary. A consequence of this is that greater food price stability in the EC contributes to greater instability in those countries which rely more on an open market system.

Maintenance of high food prices in the EC has limited the growth in consumption of livestock products which accompanies rising real income. Thus, export markets for feed grains have grown less than they likely would have under a less-protected system. However, use of support prices for livestock products has enabled EC producers to feed price-supported grain to livestock and expand livestock output.

Japan. Japan is the largest single-country market for U.S. agricultural products, even though imports of some products are severely restricted. Japan controls its food grain trade to protect its rice industry.

The goals of domestic agricultural programs are to increase production, maintain farm incomes, and bring about shifts in production patterns. Although the overriding objective is to increase self-sufficiency in food production, the agricultural resource base severely limits attainment of this objective.

Rice is the most important crop in Japan. It is produced on 50 percent of all cultivated land. All rice is purchased from farmers by agents of the Japan Food Agency. In 1977 the purchase price was over three and one-half times the world price of rice. After milling, rice is resold to consumers at a lower price. Japan is self-sufficient in rice production and does not permit importation of rice.

In 1977 wheat prices were supported at over five times the world price. However, Japan produces only about 5 percent of the wheat it consumes. All imported wheat is purchased by private firms at world import prices for the Japan Food Agency and is resold to millers at about double the purchase price. Profits to the Food Agency help to finance the rice program.

Since rice is the key commodity and is subject to almost complete government control, all other price supports are set relative to rice. Annual increases in the support price for rice have required increases in the support prices for other crops to avoid encouraging additional production of rice, which is already in oversupply, and to encourage production of other crops.

Livestock prices are supported through selective government purchases and controls over imports. If the market price for beef falls below a predetermined level, the government buys the commodity in an effort to increase its price. If market price exceeds a specified level, the government permits more beef imports.

Direct support prices are not available for pork, but prices are maintained within a range through government purchase and regulation of pork imports. Thus, prices for beef and pork are administered in the sense that government purchases are made to support prices, and import quotas are adjusted to keep prices within a range.

Domestic agricultural policy and trade policy are closely coordinated. Domestic policy is designed to protect the domestic industry in order to encourage a higher level of self-sufficiency in food production, and trade policy is adjusted in order to fill the gap between domestic production and total food requirements as determined by the Ministry of Agriculture.

Japan uses the usual methods of tariffs, quotas, and licenses to limit trade. Quantitive restrictions apply to the import of beef and pork. When these methods for limiting imports do not produce desired restrictions Japan tends to tighten up its health restrictions, pollution standards, and plant quarantines.

Although the objective of a greater degree of self-sufficiency in food production has been attained, particularly in rice, it has been reached at high cost and represents pseudo-self-sufficiency. Rice production continues to depend on imported fertilizers and imported energy sources.

Through its system of price supports and regulation of imports Japan maintains a high degree of price stability for food products, similar to that attained by European Community countries. As a result of controlling internal prices and maintaining consumption levels regardless of changing world conditions, their policies tend to cause greater price instability in countries such as the U.S., Canada, and Australia where agricultural commodity prices are less restricted.

Centrally planned economies. Since 1972 certain centrally planned economies—particularly the USSR, Eastern Europe, and the People's Republic of China (PRC)—have become intermittently large importers of U.S. grains. This group of countries is treated together even though economic development varies significantly within the group.

Agricultural production in centrally planned economies is characterized by public ownership of land, target production levels, state purchasing agencies with delivery quotas established for farms generally at fixed prices, and products sold to consumers at prices also fixed by the government. Until about 1972 emphasis in the USSR was on self-sufficiency in food production with as little reliance on food imports as possible. Food imports tended to occur only when production fell significantly below target production levels due to crop failure. Recent Five-Year Plans under which the USSR operates have called for increased production of livestock, poultry, and dairy products. These plans have called for importing grain if feed production dropped below levels required to reach

the livestock production targets. Imported grain is made available for livestock feeding at subsidized prices so that prices of the resulting livestock output do not necessarily reflect the cost of imported grain; i.e., livestock output is sold to consumers at fixed prices which do not reflect world supply-demand conditions for grain. Likewise, consumer products made from imported wheat may not be priced to fully reflect the cost of imported wheat, but may be sold to consumers at subsidized prices.

Foreign trade in the USSR is controlled by the government through centralized economic planning and regulatory organizations. The actual foreign trade in agricultural commodities is carried out by Foreign Trade Organizations (FTOs) under the jurisdiction of the Ministry of Foreign Trade. *Exportkhleb* is the FTO which controls and handles exports and imports of grains, pulses, oilseeds, and oil seed meal. It is an independent economic organization with its own operating capital which can enter into trade contracts with foreign firms and governments.

This Soviet centralized system for buying grain in world markets permits the USSR to exercise its monopolistic power in purchasing grain. The monopoly is further strengthened by maintaining control over the information about growing conditions for the domestic crop.

The entry of the USSR into world grain markets since 1972 has been the major unsettling factor in world grain markets. Estimates are that as much as 80 percent of the annual variation in world grain trade in recent years can be attributed to year-to-year changes in USSR grain imports. This large variation is a result of the situation in which planned production often fails to reach target levels because of adverse weather peculiar to the USSR grain-growing regions, maintenance of internal prices at fixed levels, and trade conducted in large volume by a state trading agency. This combination of forces can throw large shocks on the more market-oriented economies.

Because of the annual variation in U.S. grain exports to the USSR, the two countries in 1975 negotiated a 5-year agreement on the amount of grain which the U.S. would make available to the USSR without further governmental approval. The agreement required that the USSR import at least 6 million metric tons each year and could import as much as 8 million metric tons without prior approval. Larger amounts could be approved depending on Soviet import needs and U.S. supplies. The agreement was intended to stabilize U.S. grain sales to the USSR and to encourage the USSR to hold larger stocks of grain.

Major Exporters other than the United States

This section examines agricultural and trade policies which affect exports in major grain exporting countries other than the United States.

Agricultural marketing boards are a major form of government involvement in marketing grain in **Australia** and **Canada.** These marketing boards generally handle all export sales. The Australian Wheat Board (AWB) guarantees farmers a minimum price each year based on the cost of production. In high-price years, farmers must contribute to the wheat stabilization fund. In low-price years, the Treasury is responsible for deficits not covered by the stabilization fund.

The Canadian Wheat Board (CWB) exercises control over all wheat exports. Wheat producers receive a guaranteed initial price with supplemental payments later based on export sales. If the CWB fails to break even or make a profit on exports, the Canadian government makes up the loss. Both Australia and Canada have a two-price system in which the domestic price may be different from the export price. One justification of

using export marketing boards is that the volume of wheat handled results in economies of scale in the handling and selling of wheat domestically and internationally.

Australia has a number of other policies which influence its supply of wheat. The government subsidizes fertilizer purchases by farmers. For example, in December 1976 the subsidy was about 14 percent of cost for nitrogen and about 20 percent for superphosphate. The Australian transport system, particularly the rail system, also is heavily subsidized. Thus transportation costs for wheat, a principal commodity shipped by rail, are lower. In Canada preferential freight rates on Western grain represent a substantial subsidy to grain exports. The effect of input subsidies or transportation subsidies is to increase the quantity of grain available for export at any given price.

The focus of agricultural policies in **Argentina** has changed considerably since March 1976. Up to that time agricultural policies in Argentina had favored low food prices through market and price controls. The new agricultural programs initiated in April 1976 returned domestic marketing and foreign trade to the private sector, freed domestic prices from controls, raised support levels more in accordance with world levels, reduced export taxes, and promoted exports through periodic devaluation of the peso. An enlarged credit program to cover production costs and storage expansion also was instituted.

Both **South Africa** and **Thailand** are world exporters of corn. South Africa controls the marketing and influences the production of corn through its Maize Board (MB). The MB sets producer prices and is obligated to purchase all production. The Board also sets consumer prices and maintains a Stabilization Fund.

The government of Thailand negotiates annual bilateral corn export agreements. The agreements contain the total volume of annual sales, a general consensus on the monthly quantity of corn to be delivered, and specific formulae to calculate monthly export prices.

To assure a domestic supply of rice at politically acceptable prices, the Thailand Ministry of Commerce has a rice reserve ratio program, under which exporters must sell up to 30 percent (depending upon grade) of their total sales to the Ministry at controlled prices. For the future the Thai Board of Trade is attempting to persuade other Asian countries to enter into long-term (5-year) rice contracts to ensure a steady export market.

Since 1968 **Brazil** has followed a policy of promoting nontraditional exports such as soybeans and soybean products. Exports of soybean meal and oil have been stimulated by more favorable tax and/or subsidy treatment than soybeans themselves, which have intermittently been subject to export embargoes or taxes. Overvaluation of the cruzeiro and export licensing have tended to restrict Brazilian exports. Brazilian wheat policy, which includes very high support levels, is designed to increase self-sufficiency in wheat production. Although wheat imports tend to be reduced by the policy, it appears to have stimulated greater soybean production and exports since wheat and soybeans are double-cropped and the high capital costs can be spread over the two crops.

Less Developed Countries as Growing Participants in Trade

Many developing countries have discriminated against their agricultural sectors by means of restrictive domestic and trade policies. These policies have lowered domestic prices, transferring income from rural pro-

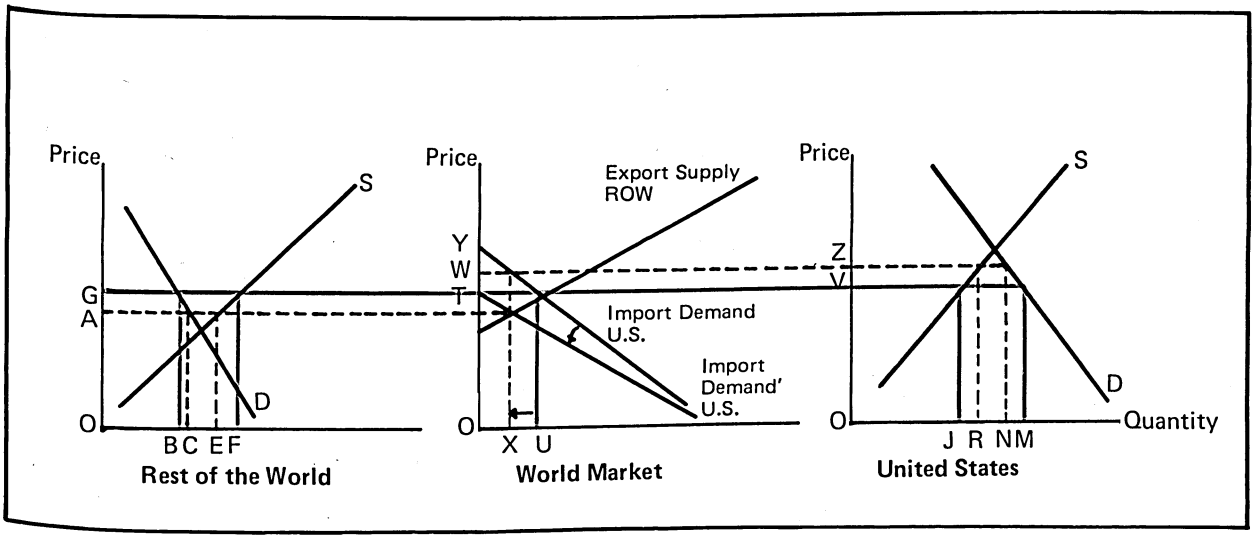
ducers to urban consumers by keeping domestic agricultural prices below world prices. As a result exports have been less than they otherwise would have been.

Many developing countries take a pessimistic view towards their export potential for agricultural products. This pessimism derives from one or more of the following beliefs: (1) there is a secular decline in the terms of trade for primary products, thus to promote agricultural exports is to suffer income losses to the advanced countries; (2) technological superiority of agriculture in the advanced countries (especially the United States) means the LDCs cannot hope to compete in world markets; and (3) export potentials are limited because advanced countries impose restrictions on imports of primary products.

U.S. sugar policy is an example of a restriction which limits exports of a tropical product important for various LDCs. When the U.S. places an import duty on foreign sugar in order to protect its domestic producers, U.S. import demand for sugar is reduced (figure 7). This raises the price of sugar in the U.S. and lowers the price in the ROW. In the U.S. production increases while consumption falls.

Although the beliefs held by the LDCs may have some validity as illustrated by the sugar case, there also are many self-imposed restrictions on their exports. Many countries use explicit export taxes instead of income or land taxes as a means of raising revenue from their agricultural sector. Similarly, the exchange rate is commonly overvalued with effects on exports and agriculture similar to an explicit export tax. And direct export quotas frequently are imposed in an attempt to control inflation. However, these policies are being reexamined, as there is a growing

Figure 7. Illustration of the Effects in the Rest of the World and the U.S. of an Import Tariff in the United States on Sugar



If an *an valorem* (percentage of value) tariff is imposed on sugar imported by the U.S., this has the effect of shifting the import demand curve down and to the left. This raises the price of sugar in the U.S. from price V to price Z and lowers price in the ROW from G to A. In the U.S., sugar production increases from quantity OJ to OR, while consumption falls from quantity OM to ON. Imports fall from quantity JM to RN (OU to OX). In ROW price falls from G to A, production falls from OF to OE, exports fall from BF to CE, and consumption increases from OB to OC.

Transportation costs cause a parallel shift to the left in the import demand curve in a similar manner. As the import demand curve shifts because of transportation costs, a divergence occurs between the price for the commodity in the exporting countries and importing countries. The divergence is the per unit transportation cost.

recognition in some developing countries that exports are important and that these policies have caused countries to become net importers of agricultural products when they formerly were net exporters.

Many developing countries since World War II have systematically pursued an import-substitution, industrialization policy. To implement the industrialization policy, governments have intervened rather strongly in the trade sector. Restrictions on trade have taken the form of export and import quotas, special licensing arrangements, tariffs, and multiple and overvalued exchange rates.

It should be noted, however, that these restrictive policies are not directed solely to promoting industrialization, nor are the policies exclusively a product of industrialization efforts. Many developing economies have been plagued throughout the postwar period by high and unstable rates of inflation. One means employed by their governments to keep the cost of living down was to permit exports only after domestic "needs" had been fulfilled. Hence, rather than use the export sector as a source of income and as a means of financing imports, an "exportable surplus" approach to exports has been followed. Exports were regulated by issuing licenses, and a license was granted only when there was a clear indication that the domestic market was "adequately" supplied. The result was a diversion of exportable production to the domestic market and a stagnation of the export quantum. This "sealing off" of the export sector frequently led to internal prices for exportable products that were substantially below world market levels. Production was lower than it might have been and domestic consumption was higher. Hence, exports were reduced not only because of the direct effect of licensing, but also because the quantity available was smaller.

Sizeable and persistent overvaluation of their currencies is another policy which has discriminated against the export sector in many LDCs. This policy was pursued for a number of reasons. In cases where the country is the dominant supplier of an export product, such as Brazil in the world coffee market, currency overvaluation was the primary means used to exploit the country's dominant position in the world market. An overvalued exchange rate is an implicit export tax, and if the country is important enough in world markets and confronts an inelastic demand for its export product, it is possible to shift the tax onto the foreign consumer. In other words, when the currency of the exporting country is overvalued, the importer pays a higher price in his currency than he otherwise would.

One problem with a policy of currency overvaluation is that usually no attempt is made to discriminate between the export(s) in which the country has market power and those where no market power exists. In some cases it has been recognized that market conditions are not the same for all products, and a policy of multiple exchange rates has been used on the export side and/or the import side. But despite attempts at a more flexible stance, discrimination usually continues. The important point is that overvalued rates tend to be maintained on traditional agricultural exports as well as on nontraditional exports in which a country appears to have export potential.

Overvalued exchange rates also are nominally maintained as a means of controlling inflation. By keeping domestic prices of export products at less than world market levels, the domestic consumer is benefited. Further support for this policy is provided by the desire to maintain low

prices for the imports needed for industrialization. Quotas and tariffs are used to keep out or limit the import of luxury goods, in order to channel the limited amount of foreign exchange to higher-priority needs.

Concluding Comments

Since the trade sector in most economies is significantly smaller than the domestic sector, most countries place a higher priority on attaining domestic policy objectives. Domestic policies are designed first and trade policies are adjusted later to accommodate; therefore, trade policy must be interpreted in the context of domestic policy. Prices, production, and consumption of agricultural products in any country are the net effect of the total package of domestic and trade policies.

Domestic agricultural policies that support farm prices above world price levels necessitate restrictions on imports and export subsidies.

All countries, including the U.S., impose policies that distort trade. Arguing over who imposes the greater amount of restriction probably does not represent a fruitful exercise.

About one-half of the world's grain and livestock is consumed in countries that have programs which stabilize internal prices and consumption. When a large proportion of world consumption is controlled, the adjustment to changing supply-demand conditions is shifted to the more open market economies. When grain production declines in one country and prices are not allowed to rise to ration out the smaller supply, but instead imports are acquired to make up for the shortfall, the adjustment to the smaller supply is shifted to the exporting countries. This leads to exaggerated price adjustments in the more open economies.

Since many countries place emphasis on price stability and dependable supplies, sharply fluctuating prices in world markets encourage self-sufficiency policies and intensify the search for alternative sources of supply. Export embargoes, even though temporary, when imposed by a major exporter like the U.S., intensify movement toward self-sufficiency policies. Distortions in internal markets in which incentives are not used to stimulate greater production when world supplies are diminished tend to hold world production below its potential.

Because of the close interrelationship between domestic and trade policies, efforts at reducing trade barriers are confronted with the need for altering domestic policies. But most countries consider internal food and agricultural policies as non-negotiable domestic issues in international fora. Until circumstances or attitudes change, efforts at further agricultural trade liberalization will make only slow progress and negotiations will be difficult.

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4

International Trade Arrangements

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Introduction

The often large and entirely unpredictable movements of prices for many primary agricultural commodities during 1972-75 again focused interest on the potential importance of international commodity policies. That interest has been evidenced in reports from the Club of Rome, the World Food Conference in 1974, and a World Food Council (WFC), and recently in suggestions for a New International Economic Order (NIEO) by the United Nations Conference on Trade and Development (UNCTAD).

The new focus on international issues and arrangements is not accidental. Indeed, it has been sharpened by the recent successes of the Organization of Petroleum Exporting Countries (OPEC) in collectively tripling the price of oil. That international cooperation can be a powerful policy tool is clear, perhaps more clear than ever before.

Many long-standing concerns exist as to how international trade should be organized. Up to the 1920s market organization and distribution systems were almost the exclusive domain of the private sector. After that an increasing international public interest in commodity schemes and other trade arrangements arose. Since the World Economic Conference in Geneva in 1927 a vast array of commodity actions have been attempted for a variety of economic and political purposes. *It is important to note, therefore, at the outset of this chapter that the set of world tensions which led to the initial interest in international market organizations is not the same as the set which propels UNCTAD and similar trade arrangements today.*

In this chapter we will: (1) analyze the economic rationale behind commodity arrangements; (2) outline various mechanisms for attaining

objectives of the agreements and arrangements including a digression on the stocks question; (3) briefly review the historical performance of the agreements and arrangements; and (4) analyze the difficulties in negotiating and executing commodity agreements and arrangements. Throughout the presentation one overriding issue will be evident—that nations pursue particular international policies for domestic or internal reasons.

Economic Rationale

Traditionally, with the exception of petroleum, the international commodity problem has been viewed as consisting of two aspects: first, short-term instability of markets for primary products resulting in wide year-to-year fluctuations in prices and export earnings; and second, the deteriorating terms of trade and sluggish growth in export earnings brought on by long-term trends in commodity markets. Recently a third set of issues has been added—that of insurance reserves for the world's consumers —which grew from humanitarian concerns over food shortages during the 1972-74 period. Thus, the major economic objectives of commodity agreements and arrangements are a combination of increased market stability, improved terms of trade, and guaranteed food security.

As of 1978, the "commodity boom" of 1972-74 seems to have abated. The resultant perplexity among nations over the long-term availability of supplies, market access, and market structure seems to have added to the confusion that existed because of failure to differentiate between traditional short-term price instability and the more fundamental resource transfer and income distribution problem. It is important, however, to distinguish between these two problems, as the policy ramifications are much different. Further, it is necessary to clarify the question of reserves (stocks, food aid, disaster relief) relative to commodity agreements.

Price Instability

Short-term instability of commodity prices, while viewed by many as less important than long-term trends, is, nevertheless, a very important problem. One objective of most commodity arrangements is to reduce period-to-period price variations. Price fluctuations of primary commodities arise basically from inelastic supply and demand schedules coupled with shifts (primarily worldwide) in supply and demand. For agricultural and related raw materials, short-term shifts in supply arise because of the biological nature of production—from weather and other natural factors. Shifts in demand arise from variations in the business cycle, from traditional factors such as population and income changes, and from variation in the production of products which are close substitutes. In situations where changes in supply are most important, the prices and volume of exports tend to move in opposite directions, thereby moderating the fluctuations in earnings. In situations where changes in demand are most important, prices and volume tend to move together; thus, export earnings are more volatile. Market structure also affects producer price instability and, in turn, incomes and other matters.

Sharp swings in prices and export earnings have a negative effect on the ability of developing countries in particular to execute rational investment programs. Their impact on domestic savings, tax revenues, and especially on the capacity of these countries to import is well-documented. Moreover, the ratchetlike effects of sharp price fluctuations of

agricultural products and raw material prices on wage rates and manufactured product prices have inflationary consequences for all countries. When the boom collapses corresponding corrections do not take place in wages and the price of manufactures, either at home or abroad.

Because stabilization of these well-recognized, short-term price fluctuations potentially can benefit both exporters and importers, arrangements to moderate them have gained a wider degree of support than have terms of trade corrective recommendations in which one party is perceived as directly benefiting at the expense of the others. "Potential" is stressed, because while both losers and gainers can prefer stability if compensation is paid, actually providing for compensation is a subject of difficult negotiation.

Terms of Trade

A second objective of commodity arrangements is to enhance or alter terms of trade through the transfer of resources or through income redistribution. Economic literature traditionally has argued that the terms of trade or long-term problem consisting of low prices and incomes is more fundamental than the short-term problem of price instability. The World Bank in a major study in 1970-71 found a strong correlation between rates of growth in gross national product (GNP) in developing countries and the growth of their export earnings, but only a weak relationship between growth in GNP and export stability. In other words instability in export earnings can be a very serious problem when superimposed on an unfavorable trend, but is much less serious when the general trend of export prices is rising.

Evidence from the latter part of the nineteenth century and the post-Korean War experience supports the view that the terms of trade are declining for producers of agricultural and raw materials. This view was popularized in the 1950s and eventually led to the first UNCTAD meeting in 1964. The argument runs as follows: (1) the elasticity of demand for most agricultural and raw materials is low both with respect to income and price; (2) most raw materials are produced in worldwide competitive markets tending to drive prices down as output increases, whereas manufactured products imported by developing countries are produced in oligopolistic markets in which output is controlled and prices maintained; and (3) because workers in the advanced countries are organized, productivity gains in manufacturing take the form of higher incomes rather than lower prices. On the other hand, in the developing countries the gains from technical progress in primary material production are passed on to the rich countries in the form of lower prices.

The rich countries have the best of both worlds according to this thesis. They are the principal beneficiaries of economic progress abroad through lower import prices and the economic beneficiaries of progress at home through higher incomes. At the same time the system traps the developing poor countries. Hence, the poor make a strong case for some sort of offsetting arrangement, whether through producer cartels or through broader international price "indexing" arrangements for raising the prices of primary products over the long-run. Also, they make the case for a new international economic order which would correct the structural inequities of the present system.

However appealing, this line of argument fails to take account of the wide divergencies among individual commodities. In the first place, not all primary commodities show sluggish trends in export earnings; hence,

corrective price measures might not be necessary. For example, copper, sugar, iron ore, timber, beef, and bananas—accounting for 40 percent of total export earnings in developing countries—grew at a rate of 7.8 percent in the period 1960-62 to 1970-72. Second, and more basic, few commodities lend themselves to a manipulation which would result in schemes which universally benefit the less developed countries (LDCs) as against the developed countries (DCs).

In this context it is important to remember that the sources of most raw material exports are the resource-rich DCs. Theoretically there is much to be gained by suppliers through setting monopoly prices. Restrictive agreements might generate significant additional income to producing countries due primarily to shortterm price inelasticities of demand, especially in the higher price ranges. It has been shown by MacAvoy in *Economic Perspective on the Politics of International Commodity Agreements*, however, that LDCs would not obtain much of the increased revenue because developed countries are responsible for substantial volumes of the commodities. Moreover, the LDCs would be penalized because they themselves consume large quantities of the commodities in question. Table 1 indicates roughly the possible net gains to LDCs. They would be greatly penalized by increases in wheat and rice but would gain from an increase in the price of sugar, which, according to the calculation, accounts for just over half of the total gains when net losses on wheat and rice are excluded. The poorest countries would be net losers even if wheat and rice were not subject to restrictive agreements.

Insurance for Humanitarian Purposes

In addition to price stability and income transfer—or efficiency and equity objectives—a third general purpose of commodity arrangements, albeit more of a byproduct of the other objectives, is that of providing food insurance to consumers for emergency purposes. The world became

Table 1. Net Revenue Flows to LDCs through Increased Commodity Prices (in billions of dollars)

Commodity	Percentage of Commodity Exported by LDCs	Total Increase in Revenue to LDCs with Price Increase of		Percentage of Commodity Imported by LDCs	Increase in Cost to LDCs with Price Increase of		Net Revenue to LDCs with Price Increase of	
		20%	100%		20%	100%	20%	100%
Cocoa	99	0.386	1.933	3.0	0.012	0.058	0.375	1.874
Coffee	96	.501	2.507	4.1	.021	.106	.480	2.401
Tea	83	.119	.597	28.6	.041	.206	.078	.391
Wool	12	.273	1.366	0.9	.207	1.033	.067	.333
Cotton	58	.504	2.518	16.7	.145	.726	.358	1.792
Wheat	4	.135	.677	45.1	1.697	8.487	−1.562	−7.809
Rice	36	1.383	6.915	71.5	2.762	13.811	−1.379	−6.896
Sugar	70	2.123	10.616	22.3	.679	3.397	1.444	7.220
Bananas	93	.031	.154	6.4	.002	.011	.029	.143
Jute	97	.022	.113	32.8	.008	.039	.015	.074
Sisal	98	.025	.123	5.2	.001	.006	.023	.116
Beef	30	.003	.014	5.9	.000	.003	.002	.011
Rubber	98	.170	.849	9.6	.017	.083	.153	.765
Copper	54	.831	4.156	7.2	.110	.549	.721	3.607
Tin	85	.161	.804	5.8	.011	.054	.150	.749
Iron	38	.211	1.054	0.8	.004	.022	.206	1.032

Source: MacAvoy, Paul W. *Economic Perspective on the Politics of International Commodity Agreements.* Institute of Government Research, University of Arizona, Tucson, 1977, p. 18, table 4.

more aware of this need after the sharp shift from economic surplus to shortage in the early 1970s. After the 1974 World Food Conference (WFC) in Rome and subsequent conferences—including UNCTAD IV at Nairobi in 1976—many countries came to expect that solutions to the most urgent food problems would be incorporated into any future agreements regarding commodity policies. The mechanisms by which this can be done include stocks, food aid, disaster relief, and other such instruments.

The crucial point is that a balance needs to be struck between the responsibility of exporting nations to maintain reasonable inventories for commercial purposes on the one hand, and the appropriate sharing of the financial costs of maintaining emergency food supplies by the various importing countries—rich and poor—on the other. Indeed, the developing nations bear some responsibility to acquire stocks to meet their most urgent needs. One method of assuring this responsibility is met is for these nations to negotiate commodity agreements involving food products that take into consideration such questions as emergency food stocks, food aid, and disaster relief.

Mechanisms, Techniques, and Instruments

Even though there is a strong economic rationale for international trade arrangements, mechanisms still must be found to harmonize conflicting interests and to execute general policies through institutional guidelines. In this section we shall briefly outline four categories of such mechanisms or techniques: multilateral trade negotiations, international negotiations of domestic agricultural policies, grain reserves, and commodity agreements.

Multilateral Trade Negotiations

Free, unfettered trade is theoretically the preferred mechanism in balancing economic interests between nations, while at the same time integrating economic and political interests toward a peaceful and stable world. Due to trade restrictions or distortions, however, governments are prone to intervene in order to reduce barriers and harmonize interests.

International trade agreements are based on the premise that to reduce barriers and obtain and develop foreign markets for its products a country must provide corresponding market opportunities within its borders for products from other countries. The multilateral trade negotiations concept grew out of the U.S. Reciprocal Trade Agreements Act of 1934 and its postwar corollaries: the ill-fated International Trade Organization, and the General Agreement on Tariffs and Trade (GATT). These and other institutional instruments for facilitating trade are treated in greater detail in chapter 1. Suffice to say that the LDCs have found fault with the traditional trade and monetary institutions such as the GATT and the IMF and have sought redress in other bodies such as the UNCTAD. Other countries have pursued the mechanisms of bilateral trade agreements, multiyear contracts, and preferential trade arrangements in order to achieve national policy objectives.

International Negotiations of Agricultural Policies

Many countries, developed as well as developing, are not willing to bind themselves and their agricultural policies through monetary and trade mechanisms such as the IMF and GATT. Indeed, it has been difficult for the United States and other exporters to bargain for reductions in agricul-

tural trade restrictions in the Geneva GATT negotiations. For the exporters to obtain significant concessions the European Community and Japan, for example, would have to alter their domestic agricultural policies to a degree which is apparently politically unacceptable in those countries. To be complete it should also be noted that many traditional exporters, including the U.S., have been reluctant to alter their own domestic agricultural policies.

As one alternative to direct confrontations such as those which take place in the GATT, developing and developed countries have used other international fora to modify or make adjustments in their domestic agricultural policies. Three such fora are the Food and Agriculture Organization (FAO), the Organization for Economic Cooperation and Development (OECD), and the International Wheat Agreement (IWA). There are others. The common thread running through all these organizations and arrangements is the attempt at structural adjustments at production levels in the developed countries.

Although chapter 3 was devoted to the interrelationship between domestic agricultural and international trade policies, three groups of agricultural adjustment problems should be identified here and reemphasized: first, those at the farm level in terms of size and/or organization; second, those at the national level in terms of supply-demand imbalances; and third, those at the international level, where the trade and development of other countries are affected. Negotiations to achieve adjustment in the domestic agricultural policies of developed countries at the production level would undoubtedly facilitate the solution of other sets of problems which arise at the national and international levels.

Grain Reserves

Price volatility and economic shortages since 1972 have put the international grain reserve question into the headlines. No such multinational reserve ever has been accomplished. Surplus stocks in the developed countries always have been the byproduct of farm programs, particularly in the United States and Canada. These countries have been residual suppliers of grain to the world, and no conscious attempt has been made to rationally accumulate and operate a reserve.

The problems of negotiating an international grain reserve, like all attempts at multicommodity stabilization, appear to be formidable. There are some strong arguments, however, for reserves; and if the principal countries were willing to consider the issues seriously, the obstacles to an agreement are not insurmountable. First, sharp upward changes in grain prices often have a pervasive influence on most food prices in the rich industrial countries and, via the wage mechanism, on the overall price level. The complications for national economic policy, or for demand management, that follow from these inflationary developments could restrict total output below potential and at large economic and social cost. Appropriate grain reserves could keep price changes within a less disruptive range, thus making an impressive contribution to the welfare of industrial nations and, because of their dominant role in the world economy, to the welfare of developing nations.

Second, for the poor, nonindustrialized countries, higher grain prices often work a variety of hardships: (1) on economic stability via heightened inflationary pressures; (2) on development programs and prospects, by forcing direct reductions in the volume of nonfood imports; and (3) on levels of food consumption and nutrition programs through cutbacks in grain imports.

Third, grain reserves for emergency use could be mobilized against disasters, and even famine emergencies could be coped with by such reserves. Prompt, adequate response from stocks for emergency use is one of the strongest points to be made for reserves, and such stocks have drawn widespread support. However, there are strong arguments against the accumulation of food reserves to combat endemic hunger.

There are alternative methods to assure an adequate grain supply to stabilize international prices, but most appear to be subject to greater liabilities or inadequacies than a grain reserve. One alternative is to return by default to the situation where the U.S. and Canada were residual suppliers from stocks accumulated under domestic programs. FAO proposed another alternative scheme through which individual countries would accumulate stocks that would be loosely coordinated by an international agency. Yet another plan would foster bilateral supply and purchase agreements between a few large exporters and importers without official provision for stocks. All these alternatives have one or more major shortcomings, and a rational, consciously accumulated and operated grain reserve has various advantages in comparison.

Commodity Agreements

The basic forms for commodity agreements are multilateral contracts, quota agreements, and buffer stock arrangements. They may be set up to operate independently or in tandem to achieve the desired objectives. Each of the forms has advantages and disadvantages.

The multilateral contract, as exemplified by the International Wheat Agreement, attempts to balance interest of producers against interest of consumers, sets no limits on production, and does not seek to limit the emergence of new producers outside the agreement. Attempts are made to balance world supply with demand. This type of agreement can be applied, however, only to commodities such as wheat which are traded in standardized grades on well-organized markets. A control mechanism also is required to enable the signatory governments to fulfill their obligations. Another obstacle to a smooth working of multilateral contracts is that the market may become controlled by a small number of countries which operate their own national policies so as to abort some of the objectives. Such has been the case with past U.S. and Canadian wheat policies.

Quota agreements attempt to regulate quantities which may be produced or exported by allocating a fixed amount to each country. Examples include the Coffee Agreement and the Sugar Agreement. This type of agreement has been used frequently to prevent competitive price cutting. Its principal purpose is to safeguard the position of established producers; and in theory, as well as in practice, it resembles private cartels and monopolies. Quota agreements also can embrace import quotas as an added inducement to stability.

Though certain short-term advantages may accrue to some nations as a result of quota agreements, the disadvantages are so great as to question the agreements as a policy instrument. Existing patterns of production and export tend to become frozen, protection of high-cost or marginal producers (these are the ones who usually argue most vehemently for quotas) results in inefficient production and misallocated resources, and the breakdown or violation of such agreements introduces elements of market instability. Finally, if quota agreements are successful in raising prices they may induce new producers to enter the market. Rigid trade patterns and orderly marketing become "unglued" and unstable when

the agreement breaks down. The gyrations in the early 1970s in sugar prices and more recently in coffee prices are illustrative of potentially destabilizing results of quota policies.

Buffer stock is the third form or technique used in commodity agreements. Buffer stocks are meant to moderate extreme price fluctuations—by buying at low prices and selling at high prices—without distorting the basic patterns of production and trade. This method gives consumers flexibility by letting them buy where they like; also, it leaves low-cost producers free to compete on market terms and does not necessarily require government control of exports and imports. The Tin Agreement was designed to operate on the buffer stock principle.

Buffer stock schemes have many problems, however. Extensive storage facilities are necessary. These costs, coupled with acquisition costs and interest costs, amount to a considerable capital investment. For some commodities these costs are prohibitive; hence, the basic questions of price ranges in which stabilization is to be attempted and of the source and amount of finance always are troublesome. A further problem is that once a buffer stock is begun there is always the temptation to try to use it in resisting the long-term trend of prices and to shift the terms of trade in favor of certain producer groups.

Other very specialized multinational arrangements also affect commodity production and trade. Three are described below:

(1) Generalized System of Preferences (GSP) in trade. This technique has been used by the British Commonwealth as well as the French in their dealings with excolonial countries. The Lomé Convention which became fully operative in April 1976 epitomizes GSP. Through this Convention the European Community gives trade preferences to 49 members, most of which are excolonial countries in Africa, the Caribbean, and the Pacific Ocean (ACP). A GSP is also part of the U.S. Trade Act of 1974. Special tariff rates are permitted on selected products from developing nations.

(2) Common markets. These arrangements are made principally to harmonize price and selected other policies over a geographical area where a commonality of interests exists. The EC, COMECON (CMEA), and LAFTA are examples.

(3) Multinational firms. Some firms or associations of firms are set up to deal primarily in the production and marketing of a single commodity—for example, oil.

History, Performance, and Potential of Commodity Agreements

It was not until the 1920s that multinational interest in governmental commodity schemes became evident. The Great Depression resulted in catastrophic price declines and created an increasing interest in governmental intervention in markets, market support, and intergovernmental market regulation. The Monetary and Economic Conference held in London in 1933 adopted a resolution favoring international commodity agreements. In the interwar period, stabilization schemes were formulated for a number of commodities—wheat, sugar, tea, rubber, tin, copper, silver, nitrates, and potash.

Rules governing the conclusion and operation of commodity agreements were worked out in the Havana Charter. Signed in 1948, but never ratified by the United States, the charter permitted the member govern-

ments, as an exception to free trade, to enter into agreements regulating trade in primary commodities. The General Agreement on Tariffs and Trade (GATT) included many trade provisions of the charter, such as commodity agreements, which are permitted as an exception to free trade.

The Food and Agricultural Organization of the United Nations (FAO) has within its structure at the Rome Headquarters a Commodity Division which is directly concerned with commodity agreements. Third World nations have worked through FAO; but more recently they have shifted the forum to UNCTAD, which has emerged as a more politically effective organization. The LDCs have made commodity policy an issue on which there is a unified confrontation with the industrialized consuming nations. More will be said later on the efforts of UNCTAD.

Since World War II, several multinational institutions have been created specifically to deal with internationally traded commodities and the consequent policy issues. In fact, many commodities have their own international organizations; for example, the International Wheat Council.

Five Commodity Agreements

Commodity agreements have been difficult to negotiate and even more difficult to operate. After many years of trial and error, there existed in 1977 only five commodity agreements (coffee, cocoa, sugar, wheat, and tin), and these are rather ineffective in regulating world markets. Despite this record, however, commodity agreements have been denounced as having restricted supplies, diverted attention from fundamental problems, and interfered with economic efficiency in international production and distribution. Other economic "sins" also have been laid at the door of commodity agreements.

A brief treatment of selected agreements follows.[1] Table 2 presents the principal features of five agreements (wheat, sugar, tin, coffee, and cocoa). Other agreements have existed on olive oil, skim milk powder, and butterfat; and there was a "gentleman's agreement" on whole milk powder. Informal agreements have been negotiated for a variety of food and fiber products. International consultative organizations have been set up for wine, cotton, rubber, wool, and lead. Finally, there are associations of producing countries built around commodity interests; e.g., raisins, copper, coconut, pepper, and others.

Wheat. International discussion to stabilize wheat prices began in the early 1930s. There have been seven agreements since 1949. Unlike other agreements, controlled supplies and buffer stocks are not in the objectives. Up to 1968 the International Wheat Agreement (IWA) was a "multilateral contract" under which exporters and importers agreed to buy or sell wheat from each other at prices within an agreed range. This mechanism provided a useful umbrella under which the world's two major exporters—the U.S. and Canada—prevented prices from falling below the floor level. The IWA negotiated in the GATT Kennedy Round in 1967, attempting to raise wheat prices, but broke down in 1968 under the pressure of surpluses. It also included a food aid provision, partly to spread the financial burden more evenly among donors, and partly to remove some of the surplus grain off commercial markets. This worked

[1]We are indebted to Dr. Anthony G. Leeks, Chief, Basic Foodstuffs Service, Food and Agriculture Organization of the United Nations, Rome, for his assistance with this information.

relatively well. In 1971, the negotiators were unable to agree on a new price range. Since then the IWA has contained no commercial trade provision. Efforts are now under way to work out a new type of IWA based on an internationally coordinated system of national stocks.

Table 2. Principal Features of Formal International Commodity Agreements

Title	Entry into force	Participating countries	Price targets	Formal export or production quotas	Buffer stocks	Other policy measures	Institutional support
International Wheat Agreement.	1971. Preceding agreements 1949, 1953, 1956, 1959, 1962, 1965, 1966, 1967.	Major exporting and importing countries, with exceptions during certain periods.*	Not at present. Earlier agreements included a range between max. and min. prices.	No	No	From 1959 until 1971 importers undertook to buy a min. share of their imports from member countries and exporters to sell the equivalent of their average exports over the preceding 4 years to member countries at prices within the agreed range.**	Administered by the International Wheat Council.
International Sugar Agreement.	1969. Preceding agreements 1954 and 1959.	All major exporting and importing countries trading on free world market.	Not at present. A range of trigger prices applied from 1969 to 1973, when the economic provisions of the agreement lapsed.	Not at present. Export quotas applied to free market from 1961 to 1973.	Not at present. Min. and max. stocks to be held in producing countries were stipulated from 1969 to 1973.	Not at present: Trigger mechanism linking quota adjustments and stock releases to movements in market prices operated from 1969 to 1973.	Administered by the International Sugar Organization.
International Tin Agreement.	1976. Preceding agreements 1956, 1961, 1966, 1971, and 1976.	All major producing and importing countries.	Yes. Range between max. and min. prices.	Yes. Export quotas.	Yes. Producing and consuming countries contribute to the buffer stock.		Administered by the International Tin Council.
International Coffee Agreement	1976.*** Preceding agreements 1962 and 1968.	All major exporting and importing countries.	Yes. Range between min. and max. prices to be established by the ICO.	Yes. Export quotas consisting of a fixed part and a variable part, linked to the price range established by the ICO, or in its absence to average indicator prices for "other milds" and Robusta coffees in 1975.	No.	No.	Administered by the International Coffee Organization
International Cocoa Agreement	1976.**** Preceding agreement 1973.	All major exporting and importing countries, except U.S.A.	Yes. Range between min. and max. prices.	Yes. Export quotas. The agreement provides for different combinations of export quotas and buffer stock operations at different price levels.	Yes.	No.	Administered by the International Cocoa Organization

* For example, U.K. in 1953 and 1956, Argentina in 1949 and 1953, and USSR in 1949, 1953, 1956, 1959, and 1967.

** The 1967 and 1971 agreements include a Food Aid Convention involving a commitment on the part of each member to supply a fixed quantity of cereals in the form of aid to the developing countries.

*** Not yet operative.

****Not yet operative.

Source: Compiled from information from FAO, Rome.

Sugar. Various attempts have been made to stabilize the world free sugar market beginning as early as 1937. The 1969-73 arrangement relied mainly on export quotas to share markets and keep the prices within a preset range. Provisions existed for stocks as well as supply guarantees to traditional importers. After operating satisfactorily in its first 3 years, the agreement became ineffective after shortages developed. Prices could not be controlled. As with cocoa, the price range was narrow and the upper limit not high enough to encourage sufficient investment at the right time. The market regulation scheme lapsed between 1973 and 1977. The United Nations negotiation conference on sugar convened in April 1977 and once again ended inconclusively, mainly because of disagreements over whether the agreement should be basically a minimum price scheme (quotas) or defend a minimum and a maximum range (combined quotas and stocks). After convening again in the summer of 1977 in Geneva, an agreement was reached, details of which are not yet available.

Tin. The international marketing of tin has been controlled for the last 50 years, with agreements begun in 1921 and made up solely by producing nations. The first International Tin Agreement, including both consumers and producers, came into effect in July 1956, for a period of 5 years. There have been several agreements since that time. Most major producing and consuming countries have been parties to the agreements, except the People's Republic of China (the fourth largest exporter) and the United States (the largest consumer.)

Coffee. Two long-term coffee agreements have been negotiated, one in 1962 and another in 1968. However, combinations of exporters, primarily in Latin America, have been involved off and on in intercountry coffee arrangements since 1902. Several 1-year agreements were in effect from 1957 to 1962. Supplies entering world trade were regulated by export quotas in order to maintain prices within an agreed range. An innovative plan was adopted later—a Diversification Fund set up to assist producers to shift to other crops, which took pressure off coffee supplies. The agreements worked reasonably in stabilizing prices at relatively low levels and, coupled with disastrous frosts in Brazil, ultimately eliminated the burdensome surpluses. The 1972-75 agreement eliminated economic provisions and the Diversification Fund. The current agreement begun in 1976 contains provisions for export quotas which can be invoked if prices fall below a given level. There are no contingencies for shortages; hence, the quota system was not needed as of the beginning of 1978.

Cocoa. An agreement on cocoa was a long time in gestation—the mid-1950s until 1972. It attempted both a price floor and ceiling along with a system of adjustable export quotas and a buffer stock. In retrospect, a buffer stock and a price ceiling have not been possible because of the poor harvests and high prices of 1972-73 and 1973-74. The present agreement was negotiated in 1976 and contains some more flexible features. But it still relies essentially on the same mechanisms, and the producing and consuming nations have had difficulty in agreeing on a price range.

Commodity Agreements and Stability

Experience with commodity agreements has tended to confirm economic and political theory. First, an effective price-raising agreement creates a strong incentive by suppliers to "cheat." Second, entry into the industry becomes more profitable for additional suppliers. And third, product

substitution by consumers is inevitable as prices go higher relative to other products. Actually, negotiating commodity agreements to stabilize —or raise—prices has presented other difficulties. Exporters and importers have, in practice, had trouble agreeing on an appropriate price range. For example, there was a great controversy between the U.S. and producing countries on the price range in the first Coffee Agreement. Exporters have had differences regarding the proper basis for establishing export quotas. And financing any stock acquisitions has been a formidable obstacle when any serious talks get under way.

In sum, the search for solutions to commodity problems through some type of commodity policy, agreements, or broader economic arrangements by governments seems to have intensified since first appearing on the scene in the 1920s. In this search, a new focal point seems to have evolved, one relating the difficulties in commodity markets to the problems of economic development in the developing countries. Stabilization, in short, is viewed as not just for the benefit of the rich, but as a supporting mechanism for accelerating the development of those marginal nations in the world economy.

New Modes of International Trade Arrangements and Future Prospects

If the record of commodity agreements and other trade arrangements is poor, why is there so much current interest in this kind of joint action in world trade? One answer might be that a returning to beggar-thy-neighbor trade policies of the 1930s and the poor development performance among the LDCs are considered bad economic alternatives. Existing agricultural agreements in their various forms cover a volume of trade valued at more than $15 billion a year, but a wider and more effective coverage is desired by many. The LDCs of the world have found fault with the present monetary and trade institutions, the IMF and the GATT. They claim that prices of their exports, mainly raw materials, have not risen as fast and have been more variable than prices of their imports, mainly manufactures. Thus they turned to the international organ where their voices predominate, the United Nations, and succeeded in creating the United Nations Conference on Trade and Development in 1964. In the periodic sessions of this forum they have united their efforts to make an impact on the developed nations of the world. Their principal intent is to make international trade an effective instrument for their development.

Demands for a New International Economic Order (NIEO) were made to the international community by UNCTAD in the mid-1970s.[2] Some ideas, such as proposals for international commodity agreements and for financial considerations, were introduced in sections of the earlier International Trade Organization (ITO) charter but not in the GATT. These are serious proposals that warrant attention. Leaders of the less radical LDCs have moved away from ideological posturing and the presentation of impossible demands for implausible changes in the world economic order. Their concern now is to secure a more equitable share of a growing world product while avoiding damaging an admittedly imperfect, but also dangerously fragile, world economy.

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[2]This section was adapted largely from writings of T. K. Warley, professor of Agricultural Economics, University of Guelph, Guelph, Ontario.

There are qualitative as well as quantitative differences in this approach. The NIEO encompasses every facet of the relationship between the advanced societies and the developing countries—aid, trade, monetary arrangements, private foreign investment, control of resources, access to capital and technology, the location of production activities, shared responsibility in decision making, and the structure and functions of the multilateral institutions. Fundamental structural changes are demanded. The cumulative result would make development of the LDCs a prime purpose of all international economic relationships. In sum, the LDCs are proposing the creation of a global system of pooling material and nonmaterial resources, systematic planning of the world economy, and its management in ways which will result in the redistribution of world income and wealth in their favor.

An integrated program for commodity trade has been drafted, containing seven interlocking elements. They are: (1) an expanding set of intergovernmental commodity agreements for an open-ended list of products; (2) a common fund to finance those agreements, including provisions for buffer stocks; (3) index-linking of the prices of LDC commodity exports to the prices of their imports; (4) compensatory financial arrangements to guarantee the total value of their commodity exports; (5) a network of intergovernmental purchase and supply commitments; (6) improved conditions of access to advanced country markets; and (7) the transfer of primary processing activities from rich to poor countries.

These measures are designed to serve two ends. The first is to improve the economic performance of commodity markets by enhancing market stability. Less uncertainty would allow greater scope for comparative advantage to determine the location of production and processing activities. The second goal is to improve the political performance of world commodity systems by redistributing income in favor of the poorer countries.

The UNCTAD proposals challenge three assumptions of the existing economic order. Those assumptions are: that the LDCs would progressively adopt the predominately market-oriented system of international exchanges employed by the advanced countries; that trade in commodities would fit for the most part into the same kind of international economic regime as trade in manufactured products (occasional interventions by governments in commodity markets might be necessary, but these were to be regarded as aberrant and transient); and that the international trading system is neutral with regard to income distribution. The system's central concern was efficiency in resource use—thereby the growth of world product, not its distribution. Any politically unacceptable distribution of income resulting from competitive trade should be corrected by direct transfers.

In contrast the LDCs believe: that economic waste in unregulated and imperfect commodity markets is exceptionally large and that continuous intervention is thereby justified; that because of the supply, demand, and structural characteristics of commodity markets, market forces will widen international income disparities; and that international economic relations should be concerned with equity as well as efficiency. Therefore, international commodity policy should be directed toward redistributing world wealth.

The UNCTAD Secretariat was charged with the task of translating the LDCs' demands into a set of practical proposals for action by the international community. The resulting proposals were examined and endorsed by UNCTAD IV in 1976 at Nairobi, with some reservations. It was agreed

that preparatory meetings for international negotiations on individual products should be convened under UNCTAD auspices and that negotiating conferences should be completed by the end of 1978. Some parts of the program will be carried forward in the GATT multilateral trade negotiations.

Many of the proposals for changes in trading arrangements will affect U.S. agricultural trade. Measures that will accelerate economic growth in the developing countries and expand their capacity to purchase foodstuffs will benefit U.S. grain producers. Competition will be enhanced for commodities produced in both the LDCs and North America. Establishing internationally regulated trading arrangements for commodities will change the economic environment in which U.S. agriculture functions, and market forces will lessen in importance.

The initial position of the United States with respect to UNCTAD IV was to maintain that the old economic order had served advanced and developing countries well; to deny that a new economic order was in the making; to stress that the primary concern must be with ensuring the growth of world output, rather than with its distribution; and to emphasize that adjustments in economic relations must confer mutual benefits on both rich and poor countries to be acceptable. In consequence, the U.S. opposed the use of commodity policy to transfer resources to the LDCs and the concomitant indexation of commodity prices and/or export receipts. Intergovernmental commodity arrangements should not be a permanent feature of the world's commodity systems. And, finally, the U.S. would not commit itself to the proposed common funding of buffer stocks.

The U.S. position became more supportive in 1977, however, when the U.S. participated in discussions on commodity agreements, a common fund, and compensatory financing. Additionally, the U.S. has advanced numerous specific proposals for changes in world economic systems that would favor the developing countries and particularly the poorest among them. All of its proposals are consistent with a more liberal and a more just economic order, and many of them coincide with the LDCs' aspirations. These include expanded aid, easier access to Western capital and technology, accelerated trade liberalization, more liberal compensatory finance arrangements, and a willingness to consider on a case-by-case basis the merits of commodity arrangements with short-run stabilization objectives.

Concluding Comments

In short, even the developed countries such as the U.S., which in the past have protected their farmers from world market fluctuations, seem to want some type of cooperative action to prevent cut-throat competition and to sustain prices in the world market for commodities such as sugar and wheat. On the other side of the coin, importing countries are looking for security of supplies, especially after the market uncertainties during 1972-74. Access to supplies of imported foodstuffs such as grains and soybeans, as well as to basic raw materials like rubber, is uppermost in the minds of some importers. More recent experiences with coffee and tea prices have revived consumer fears of further inflation in food prices. Producers also have an interest in price stability because wild fluctuations in prices dislocate investment programs and encourage the search for substitutes.

Ultimately the problem of commodity arrangements has a political dimension. The main objective of UNCTAD's Integrated Commodity Program as well as that of many other schemes is to lead to a massive income transfer from the rich to the poor countries. At the same time, the various components of the NIEO would hope to assist all countries by radically improving the structure of world markets and by shifting the balance of trading relationships onto a more equitable footing. How the conflict of perception and purpose between the developed and the developing countries will evolve, and which elements of their respective proposals will find an enduring place in future international commodity policies cannot be foretold at this time.

For Additional Reading

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5

Quantitative Dimensions of Agricultural Trade

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Introduction

Before examining the quantitative dimensions of agricultural trade, a look at the following background material will be helpful.

World trade in agricultural products expanded nearly seven times over between 1950 and 1976, from about $21 billion to $138 billion. However, during the same period total world trade expanded by more than 16 times over. Therefore, the share of agricultural products in total world trade declined from about 34 percent to 14 percent (table 1).

Table 1. The United States in World Trade, 1950-1976

Year	Total exports			Agricultural exports			Share agr. of total trade	
	World	U.S.	U.S. share	World	U.S.	U.S. share	World	U.S.
	Billion dollars		Percent	Billion dollars		Percent	Percent	
1950	61.20	10.14	16.5	20.60	2.87	13.9	33.7	28.3
1951-55 Ave	84.82	15.20	17.9	26.80	3.30	12.3	31.6	21.7
1956-60 Ave	113.32	19.06	16.8	31.62	4.26	13.4	27.9	22.3
1961-65 Ave	157.52	23.76	15.1	38.67	5.64	14.6	24.5	23.7
1966-70 Ave	248.00	35.05	14.1	47.60	6.54	13.7	19.2	18.7
1971-75 Ave	610.09	73.22	12.0	96.11	15.73	16.4	15.9	21.5
1976	991.07	113.39	11.4	138.00	22.99	16.7	13.9	20.3

Source: Mackie, A. B. "World Economic Growth and Demand for U.S. Farm Products." *World Economic Conditions in Relation to Agricultural Trade*. U.S. Department of Agriculture, ERS, WEC-12, Washington, D.C., August 1977, p. 25.

Most of the gain in world trade in agricultural products since the 1950s arose from increased demand for food and feed products in the developed countries.

The developed countries carry on a major share of the trade in agricultural and forestry products. In 1971-75, the developed countries supplied 62 percent, the less developed countries (LDCs) 29 percent, and the centrally planned countries 9 percent of world exports of agricultural and forest products. Since 1955 the developed countries have increased their share of world agricultural exports, the centrally planned have remained about the same, and the developing countries have declined (appendix table 1). Looking at changes in trade patterns in terms of imports, a reverse situation emerges. Both developing and centrally planned countries became more dependent on imported agricultural and forestry products, whereas developed countries reduced their dependency.

Marked changes have occurred in the broad pattern of agricultural trade between 1956-60 and 1971-75: (1) growing concentration of trade among developed countries; (2) growing dependency of LDCs and centrally planned countries upon the developed countries for more of their food imports; and (3) diminishing concentration of trade among centrally planned countries.

The most important trading partners of developed countries are other developed countries. While in 1956-60 about 57 percent of total developed country imports came from the developed countries, this share rose to about 67 percent in 1971-75. Over the same period the share of LDCs' agricultural imports supplied by the developed countries grew from about 55 percent to 59 percent; and the share of agricultural imports supplied by developed countries to the centrally planned countries rose from 21 to 34 percent. Conversely, the share of export trade within the centrally planned countries dropped to about one-third in 1971-75, from about two-thirds in 1956-60.

Commodities in World Trade

Compositional Trends

In 1976 world trade in agricultural commodities was approximately 55 percent food products, 14 percent feed products, 11 percent agricultural raw materials, and 20 percent other or residual commodities.

Gradual changes in the commodity composition of world trade have occurred in the post-World War II period. From 1955 through 1976 the trend has been toward a higher proportion of food and feed products and a smaller proportion of raw materials and other products (appendix table 2 and figure 1).

The share of food products in world agricultural trade grew from 41 percent to nearly 55 percent of the total. This growth was due mainly to sharp increases in the three main export categories—animal products, food grains, and beverages and spices.

Trade in feed products showed the sharpest advance with a total over 14 times greater than in the mid-1950s. Rising world demand for meats and livestock products generally has been the main contributing factor to this expansion. Trade in agricultural raw materials such as cotton, tobacco, tallow, and hides and skins—the most cyclically volatile group of commodities—grew less rapidly than total agricultural trade over the

1955-76 period. The general tendency to substitute synthetics for natural raw materials plays a major role in any explanation of the slow growth of agricultural raw material trade.

Grain Trade Patterns

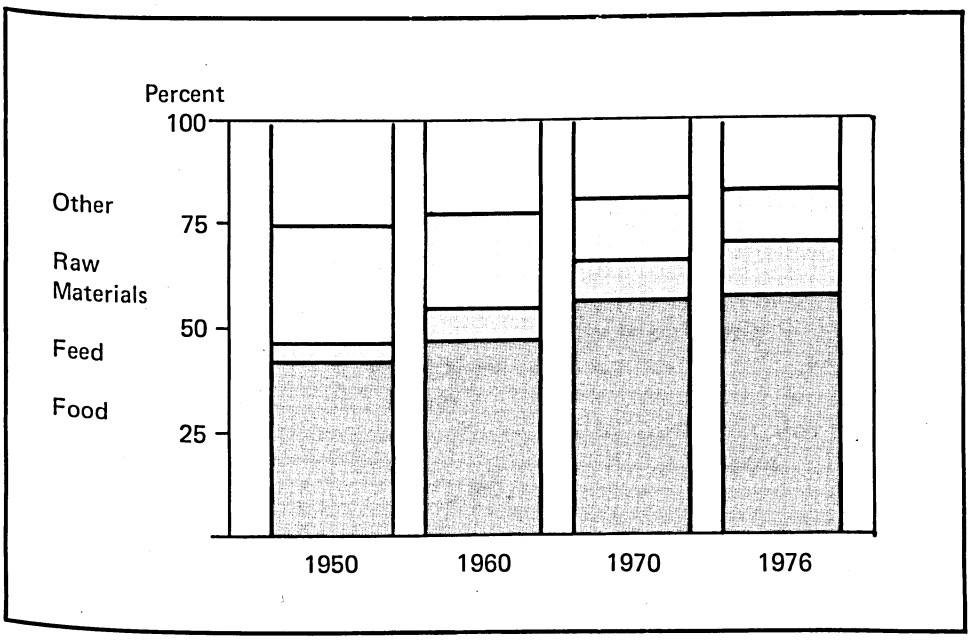
The importance of grains in world agricultural trade has risen from about 10 percent in 1955 to 19 percent in 1976 (based on data in appendix table 2). The overall increase conceals contrasting trends among regions and countries. Marked shifts have occurred in the patterns of world grain trade, with developed countries now accounting for a relatively larger share of the export trade, while the shares of LDCs and the centrally planned countries have fallen. By 1971-75 the developed countries supplied 81 percent of the world grain exports, the LDCs 13 percent, and the centrally planned countries 6 percent.

The number of food-deficit countries is increasing. The striking features of this trend appear to be: (1) the diminishing reliance of developed countries on grain imports; (2) the growing dependence of LDCs on imports from abroad; (3) the appearance of centrally planned countries as a major grain-deficit area; and (4) the unique position which North America has achieved as the world's leading grain exporter.

Among less developed areas Asia, north Africa, and the Middle East are now net importers of substantial magnitude. Other significant shifts also have occurred. The most conspicuous changes are the reversal of the centrally planned countries from high dependency upon purchases from each other to almost complete dependence upon developed countries. The second major realignment in regional trade patterns is the dwindling grain trade among LDCs themselves (appendix table 3).

The reasons for growing dependence on grain imports include: (1) population-induced demand; (2) growth in foreign exchange earnings, as in the OPEC countries; (3) rising affluence; (4) decline in self-sufficiency; and (5) poor policy management of agriculture.

Figure 1. Commodity Composition of World Agricultural Trade, Selected Years, 1950-1976



Source: Appendix table 2.

Population and income growth are the principal demand-generating forces in the developing countries. Increasing world population at nearly 2 percent per year requires a corresponding increase in food production merely to maintain current per capita consumption levels. Rising income is the dominant food demand-expanding factor in the developed countries.

The major factors involved in changing world wheat trade patterns were: (1) growth of population and income in developing countries; (2) expanding use of wheat in livestock feeding in developed countries; and (3) the expansion of concessional sales and aid programs. Also national protective measures have contributed to increased production and supply availabilities. Between 20 to 30 percent of total wheat is used for feed in developed countries.

About half the world's population eats rice in some form, and for a large proportion of these people rice forms 70 to 80 percent of their daily food. Rice is the main staple in the Far East and central Africa where the per capita utilization has been increasing in the postwar years.

In some Asian countries such as India and the People's Republic of China wheat and rice usage both have been growing, with wheat growing more sharply than rice. In Japan, however, the trend has been toward wheat but away from rice.

Most of the grain in the developing countries is consumed directly as human food supplemented by small quantities of livestock products and fish. As per capita income increases, there likely will be a change in preference from starchy roots to grains and then from direct grain consumption to high quality protein, especially livestock products.

World trade in feed grains expanded about twice as fast as world wheat trade (5.3 compared to 2.6 times). The much faster increase in feed grain trade following World War II indicates a more rapidly growing demand for meat, dairy, and poultry products that require feed grains for production. With growing affluence, consumers in developed countries were able to shift to higher-protein diets partly made possible from increased feed grain imports.

The United States in World Trade

The United States has played a diminishing role in total world trade but a growing and leading role in agricultural trade. The U.S. share of world exports of all commodities declined from about 18 percent in 1951-55 to about 12 percent in 1971-75 (table 1). By contrast, the U.S. share of world agricultural exports rose from about 12 percent to over 16 percent in the same period. The importance of the U.S. in world agricultural export trade varies by commodities, with its major dominance in cereals, soybeans, and soybean products (appendix table 4).

The U.S. portion of world grain exports has increased from 31 percent in 1950-54 to 49 percent in 1973-76 (table 2). Its share of wheat exports has risen from 33 to 43 percent; its share of coarse grain exports has risen from 28 to 53 percent. Of the total worldwide increase in grain exports during the 1970s, the United States contributed 82 percent—90 percent of the increased wheat exports and about 80 percent of the increased coarse grain exports.

Table 2. The United States in World Grain Export Trade, 1950-1976

Year	Total grain exports*			Wheat exports			Coarse grains		
	World	U.S.	U.S. share	World	U.S.	U.S. share	World	U.S.	U.S. share
	Million tons		Percent	Million tons		Percent	Million tons		Percent
1950-54	42.50	13.20	31	27.20	8.90	33	15.30	4.30	28
1955-59	55.30	20.90	38	34.20	12.20	36	21.10	8.70	41
1960-64	83.28	35.07	42	49.97	19.48	39	33.31	15.59	47
1965-69	99.82	39.28	39	55.44	18.93	34	44.38	20.35	46
1970-74	130.29	56.96	44	64.38	25.37	39	65.61	31.59	48
1973-76	150.98	73.44	49	70.31	30.41	43	80.67	43.03	53
1976	152.13	76.23	50	67.10	29.67	44	84.95	46.56	55

*Excludes rice

Source: Mackie, A.B. "World Economic Growth and Demand for U.S. Farm Products." *World Economic Conditions in Relation to Agricultural Trade*, U.S. Department of Agriculture, ERS, WEC-12, Washington, D.C., August 1977, p. 25.

U.S. agricultural imports lagged behind the other major trading countries and, as a result, its share of world agricultural imports dropped from about 17 percent in 1951-55 to about 9 percent in 1971-75. Currently the U.S. is the world's fourth largest importer of agricultural commodities.

U.S. Agricultural Exports

Exports Under Government-Financed Programs

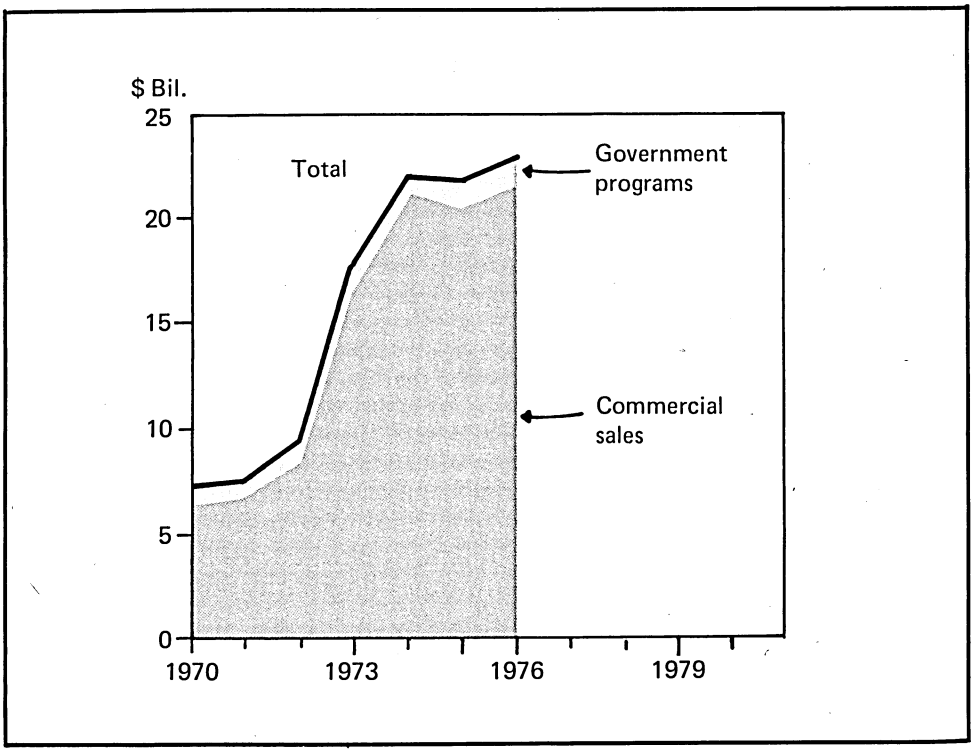
Special government export programs have played an important part in U.S. agricultural export trade since 1954. Authority to export agricultural commodities on concessional terms was given under Public Law 480 (the Agricultural Trade Development and Assistance Act of 1954) and Mutual Security Aid legislation. During 1955 to 1964 government-aided exports varied from 24 to 41 percent of total agricultural exports. Exports under government programs gradually have declined, and by 1976 these exports totaled less than $1.4 billion and represented only about 6 percent of the total. Wheat, rice, soybean oil, cotton, tobacco, and nonfat dry milk are the major commodities moved under government programs (figure 2). These programs have become an integral part of American foreign relations policy and are sometimes credited with helping develop cash markets for agricultural commodities and finance development plans in recipient countries.

Country and Area Distribution of U.S. Agricultural Exports

The geographical pattern of U.S. agricultural exports shifted gradually over the 1951-55 and 1971-76 period. Asia became the principal outlet for U.S. agricultural exports, reflecting increased shipments to western Asia and Japan. U.S. exports to this area in 1971-75 averaged $5.41 billion and represented 34.3 percent of U.S. agricultural exports compared with only 25.4 percent in 1951-55 (appendix table 5). Japan is the leading single-country market for U.S. farm products, purchasing about $3.56 billion worth, or 16 percent of the U.S. total in 1976. Japan is now the chief market for U.S. animal products, feed grains, and tobacco.

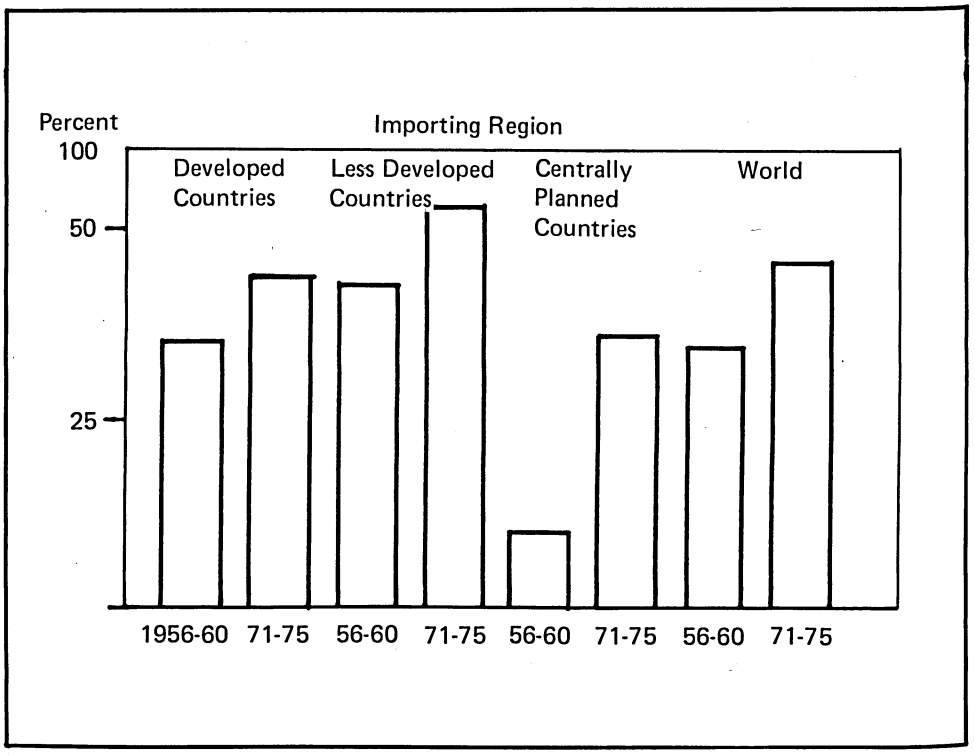
Agricultural shipments to Western Europe did not keep pace with those to other regional markets from 1951-75. The share of exports to Western Europe fell to 33 percent in 1971-75 compared with about 46 percent in 1951-55 and the high of 52 percent in 1950. In 1976 Western

Figure 2. U.S. Agricultural Exports: Commercial and Government Programs



Source: U.S. Department of Agriculture. *1977 Handbook of Agricultural Charts*, Agricultural Handbook No. 524. Washington, D. C.: November 1977, p. 64.

Figure 3. U.S. Share of World Grain Trade



Source: Appendix table 3.

Europe regained the top position in U.S. agricultural exports. Within the region the nine-country European Community (EC) as a whole constitutes the third largest regional market for U.S. farm products. Shipments to the EC in 1976 accounted for about 28 percent of all U.S. farm exports.

Although the value increased 3.5 times, Latin America's share of U.S. agricultural exports declined since the early 1950s. The area accounted for about 10 percent of U.S. agricultural exports in 1971-75 compared with nearly 15 percent in 1951-55. Growth in U.S. exports to Latin America was hampered by a combination of: (1) relatively slow economic growth; (2) low level of foreign exchange; (3) increased domestic agricultural production; and (4) loss of the Cuban market since 1961. Approximately one-sixth to one-third of exports to Latin America moved under government-financed programs in the 1950s and 1960s.

The centrally planned economy countries provided an expanding market for U.S. farm commodities, receiving 8.3 percent of the total in 1971-75 compared with 2.5 percent in 1951-55. Their share of the total rose to 10.4 percent in 1976. The larger shipments were fundamentally the outcome of the bloc's inability to meet its growing needs for wheat and feed grains and feedstuffs. Russia, the People's Republic of China, and Poland have been the largest country buyers.

U.S. exports to Canada expanded nearly fourfold from 1951-75 and accounted for around 7 percent of U.S. exports in the latter period. Yet this is nearly 2 percent below its 1951-55 share of U.S. exports. Canada is the leading market for U.S. fruits and vegetables, seeds, and sugar and the second largest for animal products.

A substantial part of the increase in U.S. agricultural exports to Africa was in shipments under government-financed programs. Grains, vegetable oils, and tobacco were the major commodity exports to Africa.

Oceania (Australia and New Zealand) has remained a small but stable regional market for U.S. agricultural exports. This area accounted for less than 1 percent of U.S. exports over most of the period under review. This is because Oceania is an agricultural area that produces temperate agricultural products competitive with most products grown in the United States.

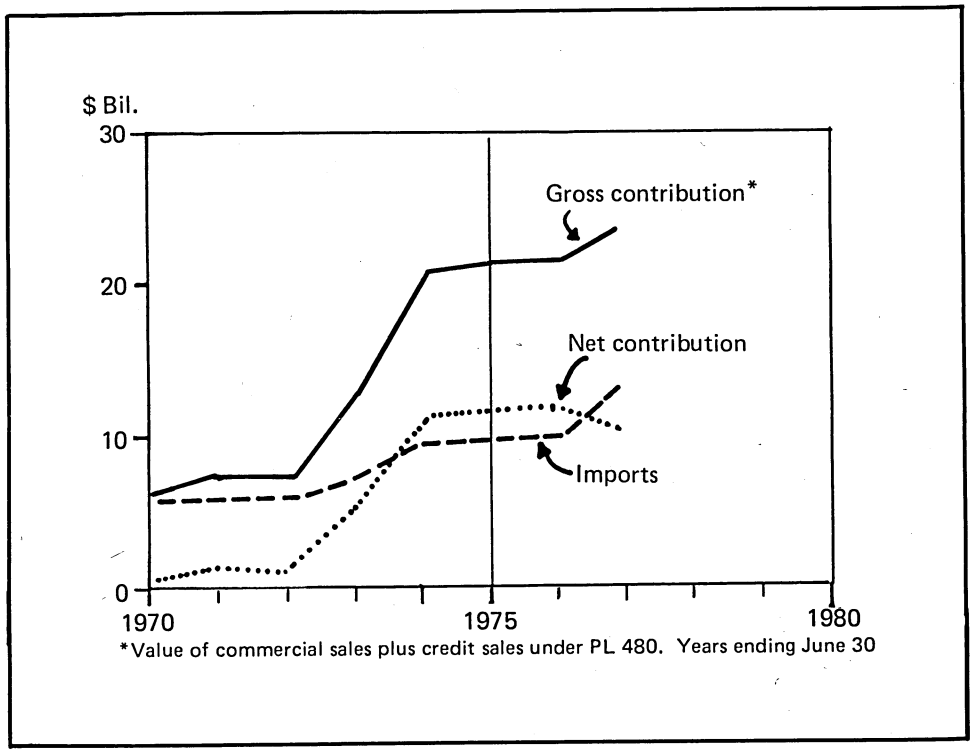
Looking at trade patterns in a broader perspective it appears that during the 20 years from 1956 through 1975, the United States supplied an increasing share of agricultural and grain products to the developed, less developed, and centrally planned economies. (See appendix table 3 and figure 3 for details.)

Significance of Agricultural Trade to the U.S. Economy

Agricultural commodities generally have maintained their position in U.S. export trade. Averaging 21.7 percent of total exports in 1951-55, the share of agricultural commodities slipped slightly to 21.5 percent in 1971-75. By contrast, agricultural imports dropped sharply from 40.4 percent in 1951-55 to 11.3 percent in 1971-75. They accounted for only 9 percent of total U.S. imports in 1976 (appendix table 6).

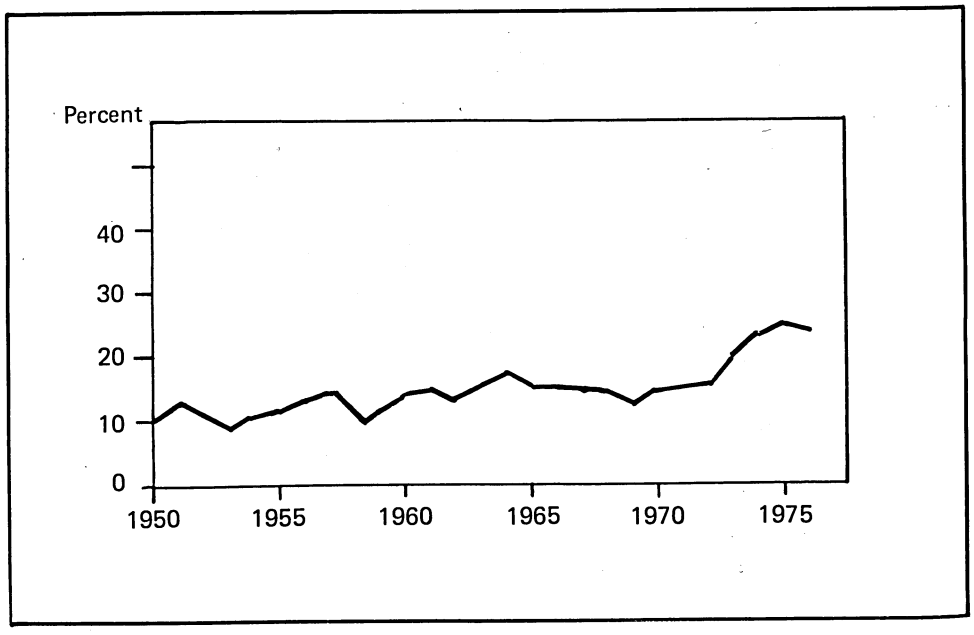
Since 1960, the total agricultural exports have exceeded total agricultural imports. Since 1972 the net agricultural trade balance has made a sizeable contribution to improving the U.S. balance of trade. Because of a favorable agricultural trade balance, the total U.S. trade balance was

Figure 4. Agriculture's Contribution to the Balance of Payments



Source: U.S. Department of Agriculture. *1977 Handbook of Agricultural Charts*, Agricultural Handbook No. 524. Washington, D.C.: November 1977, p. 64.

Figure 5. U.S. Agricultural Exports as Percent of Cash Farm Marketings



Source: U.S. Department of Agriculture, ERS. *Farm Income Statistics*, selected issues, and *U.S. Foreign Agricultural Trade Statistical Report*, fiscal year 1976 and various issues.

positive in fiscal years ending June 30, 1974 through 1976 (figure 4). The export surplus of $12 billion each year was highly significant in easing the U.S. balance of payments problem.

An important share of many farm commodities ends up in export markets. In 1976 out of 338 million harvested acres, 96 million acres provided products for export (appendix table 7).

The value of agricultural exports has risen faster than total cash receipts from farming. In 1950 the value of farm product exports was equal to about 10 percent of cash receipts from farming, while in 1975 and 1976 they were equal to about 24 percent (figure 5). Consequently significant changes in total U.S. agricultural exports will affect farmers' incomes and their ability to purchase farm equipment, building supplies, household appliances, and other consumer goods.

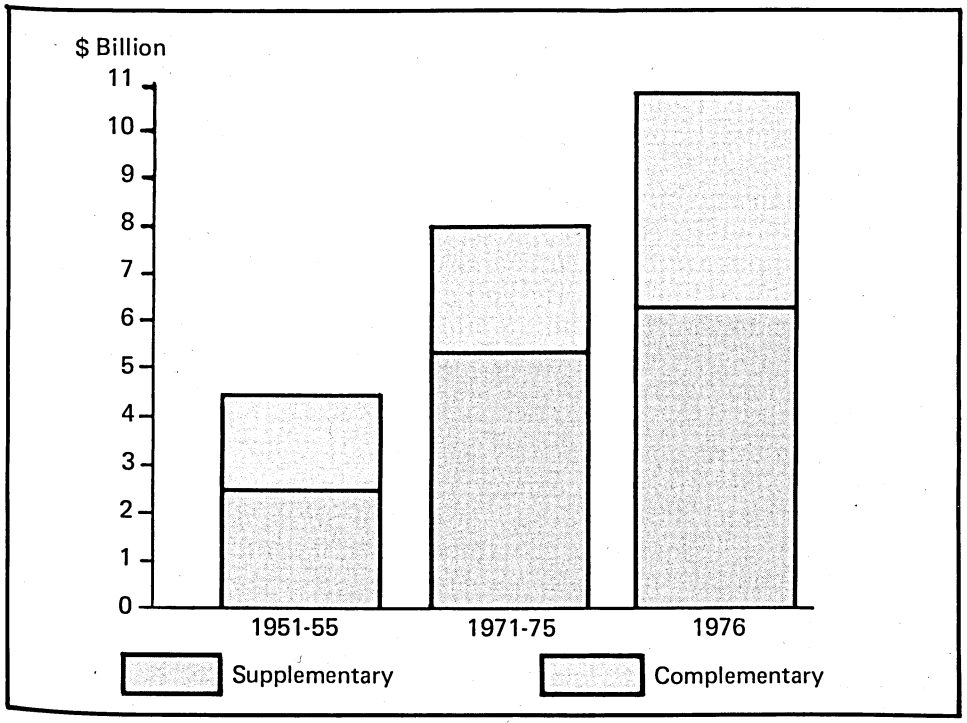
U.S. Agricultural Imports

From 1951-55 to 1971-76 U.S. imports of agricultural products nearly doubled in value (appendix table 8). Particularly large increases were shown by supplementary commodities, or those partially competitive with U.S.-produced farm commodities (figure 6).

Supplementary Imports

Supplementary commodities include meat and meat products, sugar, vegetable oils and oilbearing materials, wine, fruits and vegetables, dairy products, and hides and skins. Not all supplementary imports are necessarily directly competitive. A large part of the beef imported is of lower grade than domestically-produced beef, for example; hence, it competes in the utility or canner-cutter beef market rather than with feed-lot beef.

Figure 6. U.S. Agricultural Imports, Complementary and Supplementary, 1951-55, 1971-75, 1976



Source: Appendix table 6.

In 1971-75 meat and meat products combined accounted for about 24 percent and sugar for nearly 25 percent of total supplementary imports (appendix table 8).

Oilseeds and products constitute the third largest group of supplementary agricultural imports accounting for 7.2 percent of the total in 1971-75.

Vegetables and preparations ranked fourth among U.S. supplementary imports and comprised 7 percent in 1971-75. A major share of vegetables are imported in winter and spring months, fresh tomatoes being the main component. Wines and malt liquors showed the fastest growth, increasing more than 10 times over between 1951-55 and 1971-75.

Imports of fruits and preparations increased about fivefold from 1951-55 to 1971-75. Dairy product imports expanded about six times in the period under review. Tobacco imports rose a little more than two times over.

Complementary Imports

Imports of complementary commodities advanced less than 7 percent in the period 1951-55 to 1971-75.

Major complementary commodities were coffee, crude natural rubber, cocoa beans, bananas, and spices. Coffee is the largest import item and accounted for about 60 percent of the value of total complementary imports and over one-fourth of total agricultural imports in 1976.

Crude rubber constitutes the second largest complementary import item, representing about 11 percent of total imports. Synthetics have slowed the imports of crude natural rubber as well as carpet wool and raw silk.

Origin of U.S. Agricultural Imports

U.S. imports of agricultural commodities come from a large number of countries, with 51 percent supplied by 10 countries. Latin America is by far the most important source of agricultural imports for the U.S., though its share of the total has diminished over the years.

Latin America is the chief supplier of coffee, bananas, cocoa beans, fruits and preparations, sugar, molasses, vegetables and preparations, and some fibers.

Coffee comes mainly from Colombia, Brazil, and Mexico, whereas the Dominican Republic leads all other countries supplying sugar. Mexico is the major supplier of both fruits and vegetables and the second largest supplier of raw cotton, oilseeds, and dutiable cattle. Costa Rica, Honduras, and Ecuador are the leading suppliers of bananas. On a regional basis, U.S. imports from Western Europe, Oceania, and the centrally planned economy countries have shown the greatest growth since the mid-1950s.

Asia held third place among geographical regions as a supplier of U.S. agricultural imports. The main Asian suppliers of imports were the Philippines, Malaysia, Indonesia, India, and Sri Lanka.

Asia is the chief source for U.S. imports of crude rubber, tea, hides and skins, vegetable oils, nuts and preparations, spices, and black pepper.

Agricultural imports from Africa have shown no major underlying trend, supplying about 10 percent of U.S. import requirements in 1976. Complementary products, mainly cocoa beans and cocoa butter, crude rubber, tea, and spices, accounted for the bulk of U.S. agricultural imports.

Oceania has become a growing source of U.S. agricultural imports, contributing 10 percent to the total in 1971-75. Imports of beef and veal alone accounted for about 66 percent of total imports from this area in 1971-75.

Agricultural imports from Canada have grown in line with total U.S. agricultural imports, maintaining the country's share at 5.5 percent over the period under review. The bulk of the imports from Canada are supplementary products including grains and preparations, cattle and meats, hides and skins, and oilseeds and products.

Recent years have seen an increase in importance of U.S.-COMECON (Council for Mutual Economic Assistance) trade, and in 1976 this area accounted for around 3 percent of total U.S. agricultural imports. Animal products represent about 90 percent of imported commodities, and tobacco accounts for a major portion of the remainder.

Imports and Consumption

Of all food consumed in the U.S. from 1950-76, imports supplied a relatively stable share of from 9 to 12 percent. In 1976, imports accounted for 9 percent of total food used. Among temperate crops, imports provided 43 percent of the sugar, 23 percent of fresh fruit, 10 percent of fats and oils, and 6 percent of fresh vegetables in 1976. Except for sugar, the importance of foreign sources for each of these commodities has increased since 1955.

Imports supplied about 57 percent of total U.S. consumption of edible fishery products in 1976 compared to 37 percent 2 decades earlier. Only 3.7 percent of all livestock products were imported in 1976, but this was double the 1.4 percent imported in 1955.

Imports accounted for 6 percent of red meat imports, compared to 1.5 percent in 1955. Beef accounted for 80 percent of these imports. Dairy product imports have increased from .3 percent in 1955 to 2 percent of total supplies in 1976.

Factors Affecting U.S. Agricultural Imports

The growth in U.S. agricultural imports reflects the interaction of a number of forces including: (1) increases in incomes and demand; (2) changes in prices of U.S. farm commodities relative to foreign farm commodities; (3) increased competition from synthetic products; (4) special supply situations at home and abroad; and (5) U.S. import policies.

Buoyant economic conditions in the United States during the 25-year period under review undoubtedly contributed to the marked increase in imports. Record levels of disposable incomes tended to raise imports of complementary products and of certain specialty items such as meats, cheese, and wines. Relatively high domestic prices of cattle, beef, and dairy products served as a price incentive to foreign countries to divert larger shipments to the U.S. market.

Cost-price factors also were responsible for attracting foreign fruits and vegetables into the country. Other factors affecting the volume of imports are weather-induced supply changes and livestock cycles resulting in overproduction or shortages. Relaxation of U.S. import restraints, duty reductions, and larger import quotas have resulted in substantially higher inflows of certain commodities. Conversely, tightening of import restraints has impeded the inflow of meats and dairy products at times.

The United States regulates imports to prevent the inflow of commodities that: (1) might interfere with the operation of domestic farm price

and income support programs; (2) do not meet domestic health and sanitation standards; and (3) might carry plant diseases. The importation of commodities that are subject to price support or other programs administered by the USDA are regulated under Section 22 of the Agricultural Adjustment Act, as amended.

Under Public Law 88-482, quotas are imposed to regulate imports of fresh and frozen beef and veal. Should these meat imports exceed 110 percent of the base import quantity, the President may proclaim import quotas. Many agricultural imports must meet U.S. requirements of health, sanitation, and quarantine. Import duties are relatively low for U.S. agricultural imports. By value, 52 percent of U.S. agricultural imports entered duty free in 1976. These commodities are, mostly, complementary products. Duties on all U.S. agricultural imports averaged 3.3 percent in 1976 compared with about 6 percent in 1960.

Export Expansion and Foreign Economic Growth

Expansion in export markets has become a key element of U.S. farm policy in the 1970s and will no doubt remain a central feature in the decade ahead. Unfortunately, from the U.S. farmer's standpoint, the demand of the world's more prosperous nations for farm products is becoming quite well-satisfied. The majority of people among their populations have incomes high enough to adequately meet their food needs. As their incomes rise still further, they can be expected to spend a smaller proportion of their additional income on food.

The future expansion of exports of U.S. farm products to high-income countries may be relatively modest. It will be limited primarily to that expansion in demand resulting from population growth plus that resulting from shifts in consumer demands to higher-quality foods such as meats and meat products. Such shifts in consumer habits are predictable and usually result in growth in imports of feeds and feed grains. On the other hand, most of the growth in demand for food grains will be in the low-income countries. In these countries, the income elasticity of demand is still high (.4 or more) and greatly accelerates the growth in total demand for food when per capita income rises. In general the short-run effect of income growth in the developing countries is to shift the total demand upward faster than domestic food production, thereby increasing the demand for food imports. Also, about 90 percent of the world's population growth is taking place in the developing countries.

A recent USDA study of the changes in agricultural imports associated with changes in per capita incomes since 1959-61 in about 70 countries shows that for the countries as a group, the growth in imports of agricultural products has kept pace with their growth in income. However, growth in import demand has varied greatly depending on whether they were high- or low-income countries. It has been slowest in the high-income countries. Specifically, the study showed that as income per capita rose 10 percent, agricultural imports:

(a) from all countries rose by about 12 percent in the early 1960s, and increased by 15.4 percent in 1971-73 in countries with less than $400 per year per capita income. However, they rose only 5 percent since the early 1960s in those high-income countries with per capita income of more than $700 per year.

(b) from the United States rose very rapidly in the early 1960s (32.9 percent) and less rapidly (19.3 percent) in 1971-73 in those low-income

Table 3. Agricultural Imports Per Capita Related to Level of Income

Country group	1938	1959-61	1964	1971-73
		Dollars per capita		
High-income countries				
Income	246	700	2,280	2,710
Imports from:				
All sources	15.73	48.13	79.49	92.82
United States	1.25	5.27	7.88	14.23
Low-income countries				
Income	50	110	240	352
Imports from:				
All sources	1.48	5.08	7.90	13.91
United States	0.12	0.51	1.15	3.14
		Import elasticity		
High-income countries				
Imports from all sources		0.52	0.55	0.57
Imports from United States		0.98	0.77	0.21
Low-income countries				
Imports from all sources	1.15	1.20	1.54	
Imports from United States		3.29	2.48	1.93

Source: Mackie, A.B. "World Economic Growth and Demand for U.S. Farm Products." *World Economic Conditions in Relation to Agricultural Trade*. U.S. Department of Agriculture, ERS, WEC-12, Washington, D.C., August 1977, p. 31.

countries with less than $400 per year per capita income. Imports by the high-income countries during the early 1960s increased by 10 percent, but they increased by only 2 percent in 1971-73 in countries with per capita income of more than $700 per year (table 3).

Judging from these figures, per capita agricultural import growth was more than proportional to per capita income gains in the poorer nations and less than proportional in the richer nations (table 3). These results are significant for the American farmer. When income rises in foreign countries, the people in low-income countries who are not totally satisfied with their diets are likely to spend a large part of their increased income on food—more food and better food. This need for more food and fiber will be translated into market demand and, as we have seen, into increased demand for food imports from all countries in general and the United States in particular.

Concluding Comments

The major changes in agricultural trade that have occurred since World War II may be summarized as follows: the share of agricultural products in total world trade has declined; the developed countries have increased their share of the agricultural trade; developing and centrally planned countries have increased their dependence upon the developed countries for their agricultural imports. Trade in food and feed products has increased as the proportion of raw materials has declined. Grains have become a more important part of world trade, with the developed countries exporting more and the developing and centrally planned countries importing more of the total. Trade in feed grains has expanded about twice as fast as wheat as a result of the rapidly growing demand for meat, dairy, and poultry products.

Although the United States now plays a diminishing role in total trade, it has increased its share of world agricultural trade. It has supplied a major share of the increased grain trade in the 1970s. Government-financed exports make up about 6 percent of the U.S. total. Japan and Western Europe are the major buyers of U.S. agricultural exports.

Almost three of every 10 acres in the United States are harvested for exports. Agricultural exports are equal to about 24 percent of all cash receipts from farming.

Although U.S. agricultural imports have nearly doubled in value since World War II, the proportion of agricultural imports among U.S. imports has declined significantly. The proportion of supplementary or partially competitive commodities has increased. Latin America is the largest source of U.S. agricultural imports. In recent years imports have supplied about 9 percent of total food consumed in this country.

Future growth of U.S. farm exports will depend upon population growth, shifts to higher-quality foods in the developed countries, and higher incomes in the developing countries.

Appendix table 1. Regional Share of World Trade in Agricultural and Forestry Products and Cereals, 5-Year Average, 1956-60 to 1971-75

	Importing region							
	Developed		Less developed		Centrally planned		World	
Exporting region	Agr.	Cereals	Agr.	Cereals	Agr.	Cereals	Agr.	Cereals
	Percent							
Developed								
1956-60	41.7	40.7	9.5	18.3	1.9	2.4	53.1	61.4
1961-65	43.1	38.4	9.3	20.2	2.5	11.6	55.6	70.2
1966-70	45.7	41.4	9.3	22.7	2.5	8.0	57.5	72.1
1971-74	47.9	41.6	11.1	28.4	1.7	11.4	62.4	81.4
United States								
1956-60	9.1	18.3	4.3	13.3	0.2	1.3	13.6	32.9
1961-65	9.6	20.4	4.7	16.8	0.3	1.4	14.6	38.6
1966-70	9.3	19.6	4.4	15.8	0.3	1.1	14.0	36.5
1971-75	9.9	19.9	5.0	18.6	1.1	5.5	16.0	44.0
Less developed								
1956-60	29.7	10.1	7.2	12.0	1.5	0.8	38.4	22.9
1961-65	24.9	7.8	5.9	9.6	3.6	2.5	34.4	19.9
1966-70	22.6	8.0	5.6	8.2	3.5	1.7	31.7	17.9
1971-75	19.1	4.7	6.0	6.5	3.4	1.4	28.5	12.6
Centrally planned								
1956-60	2.4	3.2	0.6	1.9	5.5	10.6	8.5	15.7
1961-65	3.4	2.3	1.3	2.0	5.3	5.6	10.0	9.9
1966-70	4.4	1.8	1.7	3.1	4.7	5.1	10.8	10.0
1971-75	3.9	0.6	1.8	2.0	3.4	3.4	9.1	6.0
World								
1956-60	73.8	54.0	17.3	32.2	8.9	13.8	100.0	100.0
1961-65	71.4	48.5	16.5	31.8	12.1	19.7	100.0	100.0
1966-70	72.7	51.2	16.6	34.9	10.7	14.8	100.0	100.0
1971-75	70.9	46.9	18.9	36.9	10.2	16.2	100.0	100.0

Source: Mackie, A. B. "Patterns of World Agricultural Trade and U.S. Agricultural Exports." *Foreign Agricultural Trade of the United States*. U.S. Department of Agriculture, ERS. Washington, D. C.: December 1976, pp. 14-17.

Appendix table 2. Commodity Composition of World Agricultural Trade, 1950-1976

Commodity	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976
					Billion U.S. Dollars						
Food products	**8.43**	**11.83**	**15.69**	**21.39**	**28.08**	**30.09**	**35.88**	**51.23**	**64.55**	**69.98**	**70.34**
Animal	1.78	2.60	4.47	6.68	9.18	10.51	13.06	17.63	18.68	20.20	21.87
Foodgrains	2.80*	2.82*	3.30	4.62	4.92	5.20	5.98	11.02	14.94	16.11	13.56
Fruits and nuts	0.80	1.32	1.24	1.73	2.03	2.27	2.64	3.16	3.46	4.16	4.16
Vegetables	0.25	0.43	0.41	0.87	1.10	1.03	1.31	1.74	1.88	2.19	2.75
Sugar and honey	0.49	0.68	1.65	1.99	2.57	2.77	3.49	4.65	9.17	11.27	7.43
Beverages and spices	1.43	2.84	3.19	3.53	5.08	4.64	5.15	6.65	7.74	7.90	12.28
Vegetable oils[1]	0.45	0.60	0.89	1.37	2.01	2.35	2.47	3.86	6.20	5.36	5.28
Wine and beer	0.43	0.54	0.54	0.60	1.19	1.32	1.79	2.52	2.48	2.79	3.01
Feed products	**0.84**	**1.28**	**2.31**	**4.43**	**5.41**	**6.03**	**7.01**	**12.79**	**16.32**	**16.12**	**18.31**
Feeding stuff	0.17	0.39	0.07	0.79	1.11	1.22	1.43	3.06	2.86	2.50	3.52
Feedgrains	*	*	1.20	2.34	2.79	3.16	3.71	6.67	9.52	10.20	11.10
Oilseeds[2]	0.67	0.89	1.04	1.30	1.51	1.65	1.87	3.06	3.94	3.42	3.69
Agricultural raw material	**5.98**	**6.96**	**7.83**	**7.32**	**7.29**	**7.23**	**8.24**	**12.44**	**15.41**	**12.96**	**14.76**
Tobacco	0.45	0.72	0.47	1.16	1.28	1.31	1.66	1.82	2.35	2.53	2.77
Rubber	0.04	1.46	1.82	1.28	1.13	0.97	0.90	1.91	2.31	1.66	2.30
Fibers	4.52	3.48	4.69	4.44	4.31	4.29	5.03	7.70	8.60	7.03	8.07
Vegetable oil[3]	0.15	0.20	0.35	0.44	0.57	0.66	0.65	1.01	2.15	1.74	1.62
Others[4]	0.51	0.65	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Hides and skins[4]	0.31	0.45	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Residual	**5.34**	**8.69**	**8.12**	**9.66**	**10.77**	**11.90**	**14.44**	**18.60**	**21.29**	**22.94**	**25.48**
Total above commodities	15.25	20.07	25.83	33.14	40.78	43.35	51.13	76.46	96.28	99.06	103.41
Percent of total world	74.0	69.8	76.1	77.4	79.1	78.5	78.0	80.4	81.9	81.2	80.2
World agricultural exports	20.60	28.76	33.95	42.80	51.55	55.25	65.57	95.06	117.57	122.00	128.89
					Percent Composition						
Food	40.9	41.1	46.2	50.0	54.5	54.5	54.7	53.9	54.9	57.4	54.6
Feed	4.1	4.5	6.8	10.3	10.5	10.9	10.7	13.4	13.9	13.2	14.2
Raw material	29.0	24.2	23.1	17.1	14.1	13.1	12.6	13.1	13.1	10.6	11.4
Residual	26.0	30.2	23.9	22.6	20.9	21.5	22.0	19.6	18.1	18.8	19.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Feedgrains included in foodgrains.

[1]Includes SITC 421, 411.3, and 091.4 and ½ of 221.4.

[2]Includes all of SITC 221 except only ½ of SITC 221.4

[3]Includes SITC 422 only.

[4]Not separately listed since 1960.

Source: *FAO Trade Yearbooks*, selected annual issues.

Appendix table 3. Origin of Agriculture and Grain Imports by Major Regions, 5-Year Averages, 1956 to 1971-75

Exporting region	Importing region: Developed Agr.	Developed Grains	Less developed Agr.	Less developed Grains	Centrally planned Agr.	Centrally planned Grains	World Agr.	World Grains
				Percent				
Developed								
1956-60	56.5	75.4	47.8	57.0	18.5	17.3	48.9	61.4
1961-65	60.3	79.2	56.5	63.6	26.4	58.7	55.6	70.2
1966-70	62.9	80.8	56.6	66.7	23.4	54.2	57.6	72.1
1971-75	67.5	88.7	58.9	76.8	33.6	70.6	62.4	81.4
United States								
1956-60	12.4	34.0	24.6	41.3	2.2	9.6	13.6	33.0
1961-65	13.4	42.0	28.5	52.8	2.8	7.3	14.6	38.6
1966-70	12.8	38.3	26.3	46.4	2.4	7.3	13.9	36.5
1971-75	13.9	42.4	26.3	50.3	10.7	34.3	15.9	44.0

Appendix table 3, *continued*

Exporting region	Importing region: Developed Agr.	Developed Grains	Less developed Agr.	Less developed Grains	Centrally planned Agr.	Centrally planned Grains	World Agr.	World Grains
	Percent							
Less developed								
1956-60	40.3	18.7	48.0	37.2	16.9	5.8	41.8	22.9
1961-65	34.9	16.0	35.6	30.1	29.6	12.8	34.4	19.9
1966-70	31.1	15.6	33.0	24.3	32.9	11.4	31.6	17.9
1971-75	27.0	10.0	31.7	17.7	32.9	8.5	28.5	12.6
Centrally planned								
1956-60	3.2	5.9	4.2	5.8	64.6	76.9	9.3	15.7
1961-65	4.8	4.8	7.9	6.3	44.0	28.5	10.0	9.9
1966-70	6.0	3.6	10.4	9.0	43.7	34.4	10.8	10.0
1971-75	5.5	1.3	9.4	5.5	33.5	20.9	9.1	6.0
World								
1956-60	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1961-65	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1966-70	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1971-75	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Mackie, A. B. "Patterns of World Agricultural Trade and U.S. Agricultural Exports." *Foreign Agricultural Trade of the United States*. U.S. Department of Agriculture, ERS. Washington, D.C.: December 1976, p. 17.

Appendix table 4. Commodity Composition of U.S. Agricultural Exports, 1950-1975

Commodity	1950-54	1955-59	1960-64	1965-69	1970-74	1975	1976
	Million dollars						
Food	**1,549**	**2,010**	**2,819**	**3,114**	**6,187**	**11,107**	**10,319**
Wheat and flour	689	736	1,266	1,172	2,479	5,293	4,041
Rice	120	114	160	297	470	858	629
Other food grains and preps. N.E.C.	37	51	67	80	153	211	211
Meat and animals	54	95	157	182	340	584	879
Dairy and eggs	111	229	172	143	133	153	150
Lard	84	68	54	31	31	24	36
Fruits, nuts, veg. and prep.	224	358	420	476	723	1,469	1,685
Other food and beverages	92	72	92	162	379	423	378
Food oils and oilseeds[1]	138	287	431	571	1,479	2,093	2,310
Feed and farm input	**366**	**623**	**1,100**	**1,868**	**4,367**	**7,852**	**9,221**
Feed grains	275	412	693	1,059	2,353	5,246	5,992
Feeds and fodder	24	63	138	343	838	987	1,361
Soybeans[1]	46	106	213	382	1,036	1,433	1,658
Seeds and breed animals	21	42	56	84	140	186	210
Raw materials	**1,337**	**1,304**	**1,448**	**1,352**	**2,251**	**2,925**	**3,456**
Cotton	871	675	737	431	753	1,001	1,057
Tobacco	294	350	392	485	657	877	940
Tallow	58	101	113	145	267	299	377
Hides and skins	27	61	83	132	261	292	518
Ess. oils, starch	15	18	22	41	77	101	131
Veg. products	72	99	101	118	236	355	433

[1]Half of soybeans is recorded as beans and half as oil for food consumption.

Appendix table 4, *continued*

Commodity	1950-54	1955-59	1960-64	1965-69	1970-74	1975	1976
	Million dollars						
Total exports	**3,252**	**3,937**	**5,367**	**6,334**	**12,805**	**21,884**	**22,996**
	Percent Composition						
Food	48	51	53	49	48	51	45
Feed	11	16	20	30	34	36	40
Raw material	41	33	27	21	18	13	15

Appendix table 5. U. S. Agricultural Exports by Country and Major Areas and Share of Total,* 1951-1976

Year	World	Latin America		Western Europe		Asia		Africa		Oceania		Canada		Centrally planned	
		Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent
1951-55 Ave.	3,314	484	14.6	1,512	45.6	841	25.4	80	2.4	35	1.1	277	8.4	82	2.5
1956-60 Ave.	4,264	526	12.3	1,911	44.8	1,121	26.2	126	2.9	42	1.0	371	8.7	162	3.8
1961-65 Ave.	5,644	509	9.0	2,208	39.1	1,730	30.6	341	6.0	45	0.8	567	10.0	244	4.3
1966-70 Ave.	6,537	601	9.1	2,398	36.7	2,394	36.6	277	4.2	50	0.8	663	10.1	170	2.6
1971-75 Ave.	15,731	1,636	10.3	5,201	33.0	5,411	34.3	694	4.4	90	0.5	1,045	6.6	1,309	8.3
1976	22,996	1,943	8.4	7,882	34.2	7,582	32.9	1,179	5.1	119	0.5	1,493	6.4	2,413	10.4

*Millions of dollars and percent

Source: *Foreign Agricultural Trade Statistical Report*, calendar year 1976 and various issues.

Appendix table 6. Commodity Composition of U.S. Agricultural Imports, 1950-1976

Year	Supplementary	Complementary	Total agr. imports	Per capita agr. imports	Percent of supplementary imports of total agr. imports	Percent agr. imports of total imports	Percent of supplementary imports of total agr. exports
	Million dollars			Dollars			
1951-55 Ave.	1,825	2,534	4,360	27	41.9	40.4	55.1
1956-60 Ave.	1,823	2,118	3,941	22	46.3	29.1	42.8
1961-65 Ave.	2,140	1,808	3,948	21	54.2	22.7	37.9
1966-70 Ave.	3,012	1,927	4,939	25	60.9	15.5	46.1
1971-75 Ave.	5,349	2,704	8,053	38	66.4	11.3	34.0
1976	6,287	4,705	10,992	51	57.2	9.1	27.3

Source: *Foreign Agricultural Trade Statistical Report*, calendar year 1976 and various issues

Appendix table 7. U.S. Crop Acreage Harvested, Total and for Export

Year	For export						Total harvested[2]	Acreage diverted[3]
	Food grains	Feed grains[1]	Oil crops	Cotton	Other crops	Total		
	Million acres							
1950	23	11	4	8	4	50	345	
1951	31	11	3	10	4	59	344	
1952	18	7	2	5	4	36	349	
1953	14	6	3	6	2	31	348	
1954	16	8	4	5	4	37	346	
1955	18	14	7	3	5	47	340	
1956	29	10	8	9	4	60	324	13.6
1957	18	11	9	7	3	48	324	27.8
1958	17	12	8	3	4	44	324	27.1
1959	25	16	11	7	2	61	324	22.5
1960	26	16	11	8	3	64	324	28.7
1961	31	18	10	5	3	67	302	53.7

Appendix table 7, *continued*

Year	For export: Food grains	Feed grains[1]	Oil crops	Cotton	Other crops	Total	Total harvested[2]	Acreage diverted[3]
				Million acres				
1962	27	20	13	4	2	66	294	64.7
1963	35	22	12	5	3	77	298	56.1
1964	29	22	16	4	3	74	298	55.5
1965	34	22	15	3	2	76	299	57.4
1966	29	17	15	5	3	69	294	63.3
1967	31	12	16	5	5	69	306	40.7
1968	20	13	15	3	3	54	300	49.3
1969	21	13	20	3	4	61	290	58.0
1970	25	16	23	4	4	72	293	57.0
1971	20	15	21	4	2	62	305	37.1
1972	38	18	27	5	3	91	293	62.6
1973	38	21	27	6	4	96	321	19.1
1974	39	21	28	4	7	99	330	0
1975	40	24	26	4	6	100	336	0
1976	32	23	30	5	6	96	338	0

[1]Includes feed required to produce livestock products exported.

[2]Area in 59 principal crops harvested as reported by USDA's Statistical Reporting Service plus acreages in fruits, tree nuts, and farm gardens.

[3]Total diverted or set aside under various programs, Agricultural Stabilization and Conservation Service, including limited acreage devoted to substitute crops.

Source: Mackie, A. B. "World Economic Growth and Demand for U.S. Farm Products." *World Economic Conditions in Relation to Agricultural Trade.* U.S. Department of Agriculture, ERS, WEC-12. Washington, D.C.: August 1977, p. 27.

Appendix table 8. Selected U.S. Supplementary Agricultural Commodities Imports, 1955-1976

Year	Meat and meat prod.	Beef and veal	Pork	Dairy products	Vegetables and preparations	Fruits and preparations	Sugar cane and beet	Wine and malt liquors	Tobacco unmfd.	Oilseeds and products	Total supplementary
					Million dollars						
1951-55 Ave.	159.8	61.8	84.1	39.5	76.6	42.8	410.9	27.5	83.1	179.0	1,825.4
1956-60 Ave.	265.8	128.2	109.4	45.6	91.1	53.8	483.9	47.2	103.6	152.7	1,823.4
1961-65 Ave.	441.1	277.2	132.3	59.9	122.3	83.1	494.2	76.0	110.7	151.8	2,140.2
1966-70 Ave.	771.5	498.4	226.3	111.9	231.1	127.8	618.5	131.6	132.9	194.1	3,011.8
1971-75 Ave.	1,280.6	865.6	365.0	238.3	374.8	210.9	1,325.9	291.4	183.3	389.6	5,349.4
1976	1,422.8	912.1	460.4	268.7	455.2	278.9	1,148.4	454.2	294.3	521.4	6,287

Source: *Foreign Agricultural Trade Statistical Report,* calendar year 1976 and various issues

6

Current and Emerging Issues in Agricultural Trade

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Introduction

International trade problems are, in the nomenclature of agriculture, a perennial species. So, too, are efforts to deal with them. Those efforts involve political debate within a nation and diplomatic negotiation among nations. In this concluding chapter we: (1) sort out the events of the later 1970s that are giving rise to problems in agricultural trade, and (2) examine national and international attempts to resolve those problems.

It is worth reemphasizing that in trade matters the political unit is the nation, though a number of multinational institutions provide a forum for discussion, collaboration, and even joint action among nations.

Many issues affecting agricultural trade are not exclusively agricultural. For example, one feature of the "international climate" is the breakdown of the Bretton Woods agreement that set fixed exchange rates among currencies. Exchange rates are now on "managed floats," with nations giving varying degrees of support. A second feature of the international climate is the worldwide demand for the dollar as a medium of current exchange for goods and services and for investment, a demand that creates special problems for the United States. A third influence is the global redistribution of trade balances and financial reserves owing to the increase in petroleum prices established by the OPEC cartel, an increase that led the United States to a sizable trade deficit of almost $30 billion in 1977. By no means are the long-run implications of this development fully understood.

Thus, U.S. agricultural trade is caught up in a complex "international climate" for trade. The worldwide complexities seem so insoluble that many nations are individually and increasingly turning toward a policy

of trade protectionism. In this climate, the United States is left with three policy choices: to resist the protectionist trend and use all possible persuasion to induce other nations to continue a policy of trade liberalization; to accept the trend as inevitable and turn to bilateral or multilateral trading agreements for basic products including farm commodities; or to become outright protectionist. Which policy to follow is a major decision facing the nation.

World Interest in International Trade

International trade takes place for the same reason that commerce occurs within nations: there is an advantage in trade and someone is able to exploit it. In addition, national goals spur and shape international agricultural trade. Exports of U.S. agricultural products have been encouraged officially because they help pay for petroleum imports and are a way to improve the prices farmers receive as well.

Other more subtle, even abstract circumstances can have a powerful impact on why nations do or do not trade. One example is the level of security a nation feels. When countries feel relatively secure they are more willing to trade. When they are less secure they are more inclined toward protectionism or self-sufficiency. This pattern extends to worldwide attitudes toward food security and affects the willingness of nations to build international buffer stocks. Another influence is the new political assertiveness of poorer nations and their demands that the rich and powerful nations modify the terms of trade in a manner favorable to them.

It is worth noting that larger farm exports are not a universally-proclaimed goal even in a nation such as the United States. As in most economic issues, conflict exists. Export demand often competes with domestic demand for foodstuffs, thereby raising the price domestic consumers must pay for food. Producers of feed grains want maximum market outlets, but producers of livestock and poultry seek an ample and stable supply of feedstuffs at reasonable and stable prices. Farm producers want high prices, but in order to get a large volume of exports and thereby minimize need for production control, sales prices must be kept "competitive." How these conflicts are dealt with helps explain why trade in agricultural products increases, stabilizes, or declines.

U.S. Interest in International Trade

Through much of its history the United States has had a relatively self-sufficient economy. A tradition of comparative trade isolationism developed, and the tendency to be unconcerned about international trade has carried over into current trade negotiations. Robert Strauss, chief negotiator for the United States at the 1977 GATT sessions in Geneva, noted soon after he was appointed, "We haven't discussed trade in this country as they have in France, U.K., Switzerland, Germany, and the other nations of the world. You go over there, you go to Japan, they talk trade, they talk balance of payments, they talk currency, in the same way we talk football and baseball."

One reason for this lack of concern is that international trade has accounted for only a modest part of U.S. production of goods and services. The proportion was 7 percent in 1946 and now approaches 10 percent. This contrasts sharply with other nations where a far more significant proportion of output finds a market in other countries.

Exports have long been more important for the agricultural sector than for the rest of the economy. Even after World War II when agricultural exports slumped, the proportion of farm production exported was above other sectors of the nation. Now, agricultural exports account for one-fifth of all farm production. For some commodities, the proportion is over half—wheat and soybeans, for example. For producers of these commodities, export markets are essential to economic success.

Current and Emerging Trade Issues

Overall, the U.S. trade situation in early 1978 included a rising trade deficit, a falling exchange rate relative to many nations, and a rising value of agricultural exports.

General Trade Issues

Changes in international trade conditions can be divided into three categories: those due to the fluctuating value of the dollar, those due to "nationalization" of trade in raw materials, and those due to the increasing involvement of national governments. Each has potential influence on agricultural trade.

Trade and the dollar. Changes in the value of the dollar are important, directly to holders of other currencies and indirectly to U.S. sellers of farm products. This is true because only buyers of dollars are directly affected by changes in its value. For them a drop in the value of the dollar is like a drop in the price of all U.S. products. The dollars cost less (measured in marks or yen, for example) and their cost for buying U.S. goods is also less.

The impact on agricultural exports is indirect: insofar as the dollar weakens relative to the currency of other countries, it becomes easier to sell farm products to them. Insofar as the dollar strengthens relative to other currencies, it becomes more difficult to sell to them.

The U.S. trade deficit has potential consequences extending beyond the financing problems posed for the United States. Those consequences arise from the role of the dollar in international exchange. A recent report of the Joint Economic Committee of the Congress noted, "The emergence of a large, persistent U.S. trade deficit could make foreigners far less willing than they have been to hold (over $300 billion dollars) and dollar-denominated assets . . . (and the) . . . Capital flight from one currency to another could overwhelm the ability of monetary authorities to combat disorder." The report suggested, "If the United States is to have a large and persistent trade deficit, it must also have a policy for financing and gradually reducing the deficit that is credible to U.S. residents and foreigners alike."

Responses to the changing value of the dollar can be observed in international agencies, and in the actions of individual nations. The United States, for example, has at times spent large sums to prevent further weakening of the dollar. An institutional innovation of this period has been the Special Drawing Rights (SDRs), a sort of ersatz international currency. It is a composite asset made up of 16 currencies. Closely associated are the actions of the International Monetary Fund, the Organization for Economic Cooperation and Development, the World Bank, and some other international institutions that act to protect the financial position of troubled nations. At times Western nations such as Italy and the U.K. have incurred difficulties, but more often it has been the poor countries of the Third World.

Trade and "international cartelization." A second international trade issue is the changing relationship between the raw-material-supplying and the industrial, raw-material-consuming nations of the world. Most obvious is the change in policies imposed by OPEC, the Organization of Petroleum Exporting Countries. These countries have been able to cartelize the supply and price of petroleum. In the wake of their success, other mineral suppliers have tried to impose higher prices for their products. Their efforts, although unimpressive to date, gain more potential with the gradual exhaustion of some mineral resources. To date, though, only OPEC and petroleum pricing have had a big impact.

The impact is in fact dual: higher prices of imported petroleum have damaged the economies of industrial nations; and the funneling of more than $100 billion a year to the OPEC nations has redistributed trade balances and financial reserves worldwide. This is the more so because OPEC nations spend only a fraction of their income currently. The remainder is invested or left on deposit—often in banking institutions of Western Europe and the United States.

Most vulnerable to the changed international financial relationships are the poor countries of the Third World that do not enjoy high earnings from exports of oil or other minerals. In 1977 the external debt of LDCs (less developed countries) was estimated at between $140 and $170 billion of which at least $75 billion was owed to private banks, with $40 to $50 billion owed to U.S. banks. The large debt balances for oil imports pose serious problems of financing for import of other goods, including food products. Many of these countries face serious food shortages in coming years if projections of world food conditions are accurate.

Increasing involvement of governments. The economic shocks felt internationally during the 1970s apparently have encouraged the trend for individual nations to assume responsibility for the performance of their economies. As governments fill a larger economic role, the terms of international trade are affected. In the process trade policy often becomes subordinate to goals for domestic policy. Making international trade policy secondary to internal economic policy has few repercussions when all goes well. But when an economic squeeze comes, central governments are tempted to manage their foreign trade so as to minimize internal problems such as inflation and unemployment. This leads to the "export of instability" via trade protectionism and other measures.

The fundamental cause of protectionism is not a change in attitudes toward international trade; more nearly, it is a rising concern for internal economic situations. In almost any country when economic growth lags, unemployment increases, and imported products threaten domestic markets, pressure for protectionism surges. Responses of individual nations divide in the same three ways noted earlier in this chapter as choices open to the U.S.: (1) to join in international efforts to keep trade channels open; (2) to negotiate bilateral or multilateral trade arrangements; or (3) to engage in internal protectionism.

The best example of the first response as of 1977-78 was the Multilateral Trade Negotiations conducted under auspices of GATT at Geneva. The United States was an active participant. An example of the second response was the efforts of Third World nations, meeting under the aegis of UNCTAD, to form a common political front regarding trade. These nations want concessions from the industrial nations in favor of their products, and they seek to join in commodity trading agreements. The third option, that of individual nations turning toward more internal

protection, is felt everywhere. Even the United States, in spite of its liberal trade posture, has quietly worked out understandings protective of some of its industries such as textiles, shoes, and TV sets. It continues its protection on agricultural products, such as beef, sugar, and dairy products.

Agricultural Trade Issues

Within the sphere of general trade issues as just described, a more specific application to agricultural trade can be treated under four topics. They are: (1) protectionist trends in the United States and abroad; (2) practices in export market development (including how exports are synchronized with production); (3) the public willingness to trade with communist countries on terms comparable to those with other countries; and (4) the extent of public support for concessionary sales of farm products. Other issues abound, but for conciseness they are included under these major ones.

Protectionistic trends at home and abroad. In the United States as elsewhere, lagging economic activity in the later 1970s has brought new pressures toward protectionism. A slowdown in the expansion of capital investment in the United States coupled with losses in the competitive position of many labor-intensive industries gave other nations the opportunity to supply a larger share of the U.S. market for numerous products—shoes, textiles, color television sets, steel, and even automobiles. Larger imports of these items at a time of high unemployment raised serious objections among the industries affected. These objections pressured the U.S. government into protectionist actions, such as negotiating voluntary import restrictions on shoes from Korea and Taiwan and on color television sets from Japan.

Protectionistic trends by definition act adversely on exports of U.S. agricultural products. A number of the nations with which the United States arranged informal import restrictions are significant purchasers of U.S. farm products. Taiwan purchased $612 million of U.S. farm products in 1977, and Korea and Japan were even larger buyers, with purchases of $919 million and $3,857 million respectively. Together, the three countries accounted for 23 percent of U.S. farm exports in 1977.

Trade problems with Asian nations illustrate well the connections between imports of nonfarm products and exports of farm products. These connections have become more sensitive to policy decisions in recent years partly because the composition of farm exports has changed. In earlier years U.S. food exports to Asia and to a number of other countries consisted in substantial measure of products that satisfied basic food requirements such as rice, dry beans, and wheat. The demand for these products tended to be reasonably firm; countries could not easily reduce their purchases. Actions by the United States to restrict imports were less important with this mix of exports because other countries had little choice but to import or risk domestic turmoil.

The situation has changed. Food grains and the nonfoods, cotton and tobacco, now account for a smaller part of U.S. agricultural exports. A growing part—20 percent in 1948, but 60 percent in 1977—consists of oilseeds (and products), feed grains, and livestock and poultry products. These types of exports allow buying countries more flexibility. Thus, U.S. actions to restrict imports of manufactured goods carry more danger now of reducing export markets for U.S. farm products.

Other kinds of protectionist trends among countries that buy our products also are troublesome. One example is the invention and spread-

ing use of devices other than the traditional tariff. Most obvious and best known are policies such as the variable import levy the European Community uses to protect its millions of small farmers. Unfortunately, the EC is not alone in using such a system. Japan also maintains a high internal price support for wheat and levies a tax on imports to protect that price.

Almost in the nature of a nontariff barrier, but usually less intentionally imposed, are impediments to information bearing on foreign trade. Nations often refuse to share production information that is needed for buyers and sellers to be well-informed.

Export market development. Tactics and techniques in export market development often take on a virtual glamor for exporting organizations. Their importance will not be minimized here, except in a relative sense. The financial capacity of nations to buy U.S. products, their internal supply-demand conditions, and free versus restricted terms of international trade remain the foremost influences on the volume of U.S. farm exports.

Market development begins with the offering of high-quality products. Instances such as the grain inspection question that arose concerning wheat exports at the port of New Orleans in 1975 are detrimental to market development efforts. The irregularities uncovered at that time included misgrading, false weighing, and adulteration of grain. Those revelations led to the enactment of a new Federal Grain Inspection Act. That act was designed to ensure the quality of U.S. grain being shipped to other nations and was a major step in the development of future export markets.

Another helpful step in building up repeat export sales is some degree of stabilization in U.S. supply. Crop storage programs such as those provided for in the Food and Agriculture Act of 1977 improve buying nations confidence that adequate grain and other products will be available in future years. Grain producers generally have taken a skeptical attitude about storage programs, believing instead that periodic world scarcities will provide higher prices if no sizeable reserve is on hand. U.S. livestock and poultry producers, export firms, and foreign buyers commonly support the idea of a stabilization reserve.

A third phase of market development is financing. By and large, farm exports from the United States are privately financed. Two governmental lending programs of note are the Export-Import Bank and the Commodity Credit Corporation (CCC). The CCC program provides short-term credit to finance export sales of U.S. farm products overseas for periods ranging from 6 months to a maximum of 3 years. Interest rates vary. In 1978 rates for 6 and 12 months' repayment were 7 percent with a U.S. bank and 8¼ percent with a foreign bank. For terms longer than 12 months, the rates were 8 percent and 9 percent.

In the winter of 1977-78, when prices of grains sagged and larger export outlets were sought, strong pressure was exerted for expansion of CCC lending. The Corporation, which had previously held its export loans outstanding to $750 million, announced that it would increase its lending to $1.7 billion.

A separate issue is export financing by international organizations. Although the United States contributes substantially to the funding of those organizations and has a voice in setting the terms of their charters, they are not directly under the control of U.S. authorities.

Finally, overseas development of farm markets is a useful example of private-public cooperation. The U.S. government joins with private associations in developing overseas markets for soybeans, peanuts, rice, wheat, feed grains, and livestock. Partly, the joint effort results because foreign affairs policy is implicitly involved. But other needs including those for technical information and financing also explain the joint action.

Perhaps the greatest success story has been the joint work of the American Soybean Association and the Foreign Agricultural Service of the U.S. Department of Agriculture, which began in 1956. Development work expanded rapidly after soybean prices skyrocketed in 1972, and by 1977 it was ongoing in 45 countries.

Market development work for wheat, rice, and peanuts has been less effective in bringing about a steady uptrend in exports. Exports of these products have been subject to a series of unstabilizing events, and annual volume continues to fluctuate.

The newest export promotion work began in 1976 with a cooperative agreement between the U.S. Department of Agriculture and four organizations—the American Meat Institute, the National Cattlemen's Association, the National Pork Producers Association, and the Independent Meat Packers Association—jointly called the U.S. Meat Export Federation. After the initial organization was established membership expanded rapidly. Ultimately, as many as 30 meat and livestock organizations may join. A major thrust initially was to expand meat exports to Japan and West Germany where high import taxes have prevented consumers from receiving the benefits of lower-cost meat from the United States.

Increasing trade with Communist countries. In 1977, the United States exported $1.9 billion of agricultural products to Communist countries, a massive increase from the $142 million exported in 1970. Prospects for the future depend on several factors, most important of which is their domestic production.

In the new Five-Year Plan covering 1976-1981, the Soviet government lowered projected increases in livestock production to levels more consistent with its own production of grain. However, prospects for meeting the projected levels of grain and sunflower seed production are not bright in view of the weather patterns that prevail over the country. One estimate by USDA is that imports of between 10 and 15 million tons of grain a year will be required. This is substantially above the 6 or 8 million tons specified in the long-term Grain Supply Agreement concluded between the United States and the Soviet Union in October 1975.

Future prospects for trade with the rest of the Communist world depend on a number of factors. If diplomatic conditions continue to improve between the United States and the People's Republic of China (PRC), there is a high probability of larger farm exports to that nation. China has almost one-fourth of the world's consumers; only a small per capita improvement in diets would require massive amounts of food. But a number of steps are required including a greater awareness of their food preferences, eating habits, and marketing facilities. Further, expanded exports can be realized only if an improvement takes place in overall trade relations. This includes making it possible for the PRC to sell goods in this country.

Concessionary exports of farm products. Most U.S. farm trade is commercial. From the standpoint of certain goals such as improving the U.S. balance of payments, only commercial trade counts. But concessionary farm exports (usually under P. L. 480 programs) can make other

contributions. They can, for example, help relieve a surplus situation for a commodity—though justifying concessionary exports solely in these terms in the past has brought on justifiable criticism.

Concessionary exports serve multiple rather than single purposes. Wisely chosen and properly administered programs of concessionary exports can contribute to the nation's foreign policy objectives and aid the economic development of recipient countries. The language of the Food and Agriculture Act of 1977 requires that local developmental programs, where appropriate, be made a condition for qualifying for U.S. concessionary exports. Concessionary exports also, in some instances, can prove developmental with regard to commercial exports. Although the opportunities for this favorable outcome are fewer now than in the early years of P. L. 480, the possibility merits mention.

Concessionary exports have been smaller, relatively and absolutely, in recent years. Grants and donations in the 1970s have been only 1 to 2 percent of total agricultural exports, and total shipments under concessionary terms (including long-term dollar credit) have not been above 5 percent of total exports. For reasons too numerous to spell out here, concessionary export policy will remain a subject of debate and decision in export policy—and foreign policy—of the United States.

Concluding Comments

In examining the important issues affecting future agricultural trade, one quickly comes face-to-face with many related nonagricultural trade issues. These issues are complex—dollar devaluation, international cartelization of commodities, and trade protectionism. When combined with changes in international financial institutions and world trade rules, these issues pose prospects of an unsettled world climate for trade.

The lurking danger is that protectionist actions of governments may have a negative impact on agricultural trade. This is a danger always inherent in a faltering world economy. Based on historical patterns, insofar as the United States leans toward protectionism the next step will be retaliation by other countries against U.S. exports. This sequence of events would likely reduce world agricultural trade and the U.S. portion of it; it illustrates the increasing complexity of world trade problems and the problems facing U.S. agriculture as it becomes more and more immersed in a world market for agricultural products.

While agricultural interests do not have direct control over some important policies that will affect future export levels, there are areas in which additional influences can be exerted. The discussions over commodity agreements take on added importance as vehicles to raise related trade issues. The Multilateral Trade Negotiations are key discussions for agricultural interests. These negotiations previously have concentrated on opening up foreign markets for nonagricultural products from the United States. If this round proves to have successfully addressed agricultural trade, it may turn out to be more important to U.S. agriculture than any of the discussions since World War II.

Agricultural exports now absorb about one-fourth of all U.S. farm output, giving trade issues high priority in domestic policy discussions. All programs including price supports, target prices, set-asides, market development, grain reserves, and even research and educational programs must take increasing account of international trade considerations. Agricultural interests need to be more aware of trade issues and

contribute toward arriving at a desirable level and composition of agricultural trade, as well as a harmony between foreign trade and domestic agricultural policies.

It is always possible, of course, that world food shortages may occur again. Even without such shortages, world agricultural trade will continue to grow. Prudent policy calls for the capacity to respond to such growth, including the appearance of new market potentials. To meet such potentials the nation's economic, educational, technological, and political systems must emphasize export markets. U.S. growth and development in the twenty-first century may depend on it.

For Additional Reading

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GLOSSARY

Absolute advantage When one country is more efficient in the production of a certain good than is another country. Accordingly, a country exports what it can produce more cheaply and imports what others can produce more cheaply.

***Ad valorem* tariff** Duties calculated on the value of goods; e.g., 15 percent of the value (15 percent *ad valorem*).

Antidumping measures (Also see **dumping.**) According to the U.S. Antidumping Act of 1921, if a foreign exporter sells to the U.S. at prices "less than the fair value," thereby injuring American industry, import quotas and special restrictions (antidumping measures) can be levied on the goods concerned. These duties make up the difference between the exporter's price and the foreign market value. An international antidumping code was negotiated during the "Kennedy Round" of GATT.

Balance of payments Relationship between receipts from foreign countries on one side and payments to them on the other including all transactions, private and governmental. The difference between the two totals represents the balance of payments. On the plus side are export sales; money spent by foreign tourists; payments to the U.S. for insurance, transportation, and similar services; payments of dividends and interest on investments abroad; returns of capital invested abroad; new foreign investments in the U.S.; and foreign government payments to the U.S. On the minus side are cost of goods imported, spending by tourists overseas, new overseas investments, and the cost of foreign military and economic aid.

Balance of payments deficit When international payments are greater than receipts.

Balance of trade The relationship between imports and exports. A country's balance of trade is only one aspect of its balance of payments.

"Beggar-thy-neighbor" policy A policy of competitive depreciation. During the 1930's many countries depreciated their currencies beyond the equilibrium rate of exchange in an attempt to stimulate exports, thereby creating a surplus in their balance of payments. Since this policy required a deficit disequilibrium in the balance of payments of other countries also faced with depression, it amounted to exporting unemployment.

Bilateral Two-party or two-country, such as a bilateral trade agreement between the U.S. and one other country.

Buffer stocks Supplies of a product which could be set aside and used to moderate extreme price fluctuations by assuring a more stable supply.

Cartel A formal arrangement embodying written or explicit verbal agreements among producers to regulate price or output or to divide markets geographically. The most recent and most successful example is OPEC.

Commodity An article of trade or commerce that can be transported, especially an agricultural or mining product.

Commodity terms of trade A ratio consisting of the price of one product expressed in terms of another.

Comparative advantage Refers to the theory that it is best for a country to devote its energies not to all lines of production in which it may have superiority but to those in which its superiority is greatest. The theory requires the opportunity for goods to be traded between countries.

Complementary goods Goods that "go together." Whenever the price of one good and the demand for another are inversely related, they are complementary. For example, if the price of gasoline falls you drive your car more, which increases your demand for motor oil; thus, gasoline and motor oil are complementary goods.

Complementary imports Commodities imported that are not competitive with U.S.-produced commodities. Examples are coffee, tea, bananas, and natural rubber.

Concessional sales When the buyer is allowed payment terms more favorable than those obtainable on the open market. Under Public Law 480 the concession may be the type of currency accepted as payment, the length of credit and grace period, or the interest rate charged.

Currency exchange rate Number of units of one currency that can be exchanged for one unit of another currency at a given time.

Deficiency payments A method of government support of farm incomes. Usually reflect the difference between actual domestic market price levels for a commodity and a higher fixed or guaranteed price. Agricultural price support for the principal commodities in the U.K., for example, is based primarily on deficiency payments.

Deflation A reduction in the general price level, brought on by a decrease in the amount of money in circulation or by a decrease in the total volume of spending.

Demand conditions Factors that influence the demand for a product including taste and preferences of consumers, income of consumers, prices of related goods, and consumer expectations in respect to future prices and income.

Dumping Selling in a foreign market at a price below that received for the same product in the home market.

Duty Special tax applied to imported goods, based on tariff rates and schedules.

EC (European Community) Established by the Treaty of Rome in 1957 and originally called the EEC (European Economic Community), it was an attempt by six countries—France, West Germany, Italy, Belgium, the Netherlands, and Luxembourg—to unify and integrate their economies by establishing a customs union, common economic policies, and common agricultural policies. The U.K., Ireland, and Denmark became members in 1973. Popularly called the European Common Market.

Elastic and inelastic demand How responsive consumers are to price changes in a product. The demand for some products more than others is affected by price changes. If price changes result in a great change in demand, the demand is elastic; if price changes result in modest changes in demand, the demand is inelastic.

Elastic and inelastic supply If producers are responsive to price changes, supply is elastic; if producers are relatively insensitive to price changes, the supply is inelastic.

Exchange controls Direct government control of the demand and supply of foreign exchange to regulate balance of payments movements and maintain existing exchange rates. By reducing the demand for or increasing the supply of foreign currency, a country can maintain a given exchange rate.

Exports Products shipped to foreign countries.

Export subsidies Special incentives extended by governments in the form of outright cash disbursements, tax exemptions, preferential exchange rates, special contracts, etc. to encourage increased foreign sales.

Foreign exchange Involves converting money of one country into that of another and the transfer of money values from one country to another.

Free trade Exchange of goods with no trade barriers or restrictions such as tariffs or import quotas.

GATT (General Agreement on Tariffs and Trade) Multilateral agreement originally negotiated at Geneva in 1947 among 23 countries (including the U.S.) for the substantial reduction of tariffs and other trade barriers. Provides a forum for intergovernmental tariff negotiations.

Gold standard Values of national currencies defined in terms of gold. A modified form of this system was in effect until 1971, when the U.S. suspended the dollar's convertibility into gold.

Green rates Calculations of European Community agricultural prices and values made in units of accounts are converted into a special set of administratively determined exchange rates referred to as green rates.

Gross national product Total market value of all final goods and services produced by a nation's economy before deducting depreciation charges and other allowances for consumption of durable capital goods.

IBRD (International Bank for Reconstruction and Development, or World Bank) Makes or guarantees loans for development of economic facilities in developing countries with funds borrowed in private capital markets. Loans are made, for example, for development of electric power, transportation, agriculture, and irrigation. Headquartered in Washington, D.C., IBRD's activities are meshed closely with those of the International Development Association.

IMF (International Monetary Fund, or the Fund) An international regulatory institution formed to: (1) promote international monetary cooperation by providing machinery for consultation and collaboration on international monetary problems; (2) facilitate growth of international trade; (3) promote exchange stability; (4) assist in the establishment of a multilateral system of payments for current transactions between members; and (5) give confidence to members by making the Fund's resources available to them under adequate safeguards.

Import quota Government measure which limits total volume or total value of particular goods imported into a country during a specified period. Frequently, import quotas are implemented by "import licenses" issued by a government to individual importers to permit them to import a specified quantity or value of a restricted product.

Imports Products brought into a country from abroad.

Infant industry argument The doctrine that tariff duties are needed for the protection of new industries. It is argued that a country in the agricultural stage of development, about to advance into the manufacturing stage, will meet difficulties during the transition period because of the competition of established industrialized nations.

Inflation An abnormal increase in available currency and credit beyond the proportion of available goods, resulting in a sharp and continuing rise in price levels.

Less developed countries (LDCs) Also referred to as "developing countries." These, generally, are countries in which the gross national product is below $500 to $600 per capita.

Liberal trade Refers broadly to trade that is relatively free of controls or restrictions, in contrast to "restricted trade." "Liberalism" in trade also can be contrasted with "protectionism."

Manufactures Goods processed from a raw state through the use of manual labor or machinery.

Mercantilism The theory and system of political economy prevailing in Europe after the decline of feudalism (approximately 1500 to 1750), based on national policies of accumulating bullion, establishing colonies and a merchant marine, and developing industry and mining to attain a favorable balance of trade.

Most-favored-nation Refers to agreements between countries to extend the same trading privileges to each other (including tariff concessions) that they extend to any other country.

Multilateral Refers to many countries, as opposed to two countries (bilateral). GATT is an example of a multilateral agreement.

Multiple exchange rates May be used by a government to control foreign exchange by limiting the import of certain types of goods. With such a system, the country sets varying rates of exchange between its own currency and foreign currencies depending on classes of imports.

Nonrecourse loan A price-support mechanism of the U.S. Commodity Credit Corporation (CCC) whereby farmers put up their crops as collateral for a loan. If the market price is below the government loan rate at maturity of the loan, farmers may choose to pay back the loan with their crops, thereby transferring ownership to the government.

North-south dialogue Informal negotiations between the industrialized

countries of the world, generally located in the northern hemisphere, and the developing countries generally located in the southern hemisphere.

Oligopolistic market When a relatively small number of sellers dominate the market for a good or service.

OPEC (Organization of Petroleum Exporting Countries) International organization formed to control the export price of petroleum. Membership in 1977: Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Overvalued currency When a country holds its exchange rate at too high a level, so that its costs are not competitive and it chronically runs a balance of payments deficit.

Perfect competition Assumes the presence of a large number of independent buyers and sellers in the market with no individual firm exerting significant control over price.

Preferential trade Often used interchangeably with "tariff preferences." Refers to favorable tariff treatment accorded by one country or group of countries to all exports of certain other countries.

Price index Estimates overall changes in the price level; a percentage comparison that tells how much prices have increased or decreased relative to what they were in the base year.

Price ratio One price divided by another.

Primary commodities Usually commodities in the raw or unprocessed state. For example, iron ore is a primary commodity, pig iron is a semiprocessed product, and a steel girder is a manufacture or manufactured item.

Protectionism Usually a reaction by an industry or country to increasing foreign competition. The most common type of protectionism is the protective tariff designed to shield domestic producers.

Reciprocal trade agreements In American practice these are agreements concluded with one or more foreign countries under which U.S. tariffs or other trade barriers are reduced in return for reductions of foreign barriers against American goods.

Retaliation Action taken by one country against another because of the imposition of tariffs or other trade barriers. Retaliation can take a number of forms: imposition of higher tariffs, import restrictions, or withdrawal of trade concessions previously agreed-upon. According to GATT, restrictive action by one country legally entitles the aggrieved party to compensatory action.

Specific tariff A duty levied on imports on the basis of some physical unit; e.g., 20 cents per pound or per gallon.

Stability and instability Refer to price fluctuations arising basically from shifts in supply due to weather variability and shifts in demand due to variations in the business cycle, population, and income.

Supplementary imports Similar to commodities produced in the importing nation. Also referred to as "competitive" imports. Examples in the U.S. are beef, wheat, and cotton.

Tariff Schedule, system, or scheme of duties imposed by a government on goods imported (usually) or exported. Tariffs may be protective (designed to protect domestic production against the economic effects of imported goods) as contrasted with revenue-raising (established to bring revenue to the government).

Terms of trade The relationship over time between level of export and import prices of a country or region. If export prices received are higher than import prices, the terms of trade are said to be "favorable." When the reverse is true, the terms of trade are "unfavorable."

Third World countries Term applied to the non-Communist developing countries as a whole. The other two "worlds" presumably include the industrialized countries of the West or "free world," and the Communist countries or "centrally planned economies."

Undervalued currency When a country holds its exchange rate too low and runs a chronic balance of payments surplus.